

# **Entry-Level 4 Channel Network Video Recorder**

**User's Manual v1.7.5**



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## System Requirements

The following are minimum system requirements for the system to operate Embedded Network Video Recorder (ENVR):

### **Operating System**

Microsoft® Windows® 2000 Professional, Windows® XP Professional (32 bit) or Windows® Server 2003 (32 bit)

### **Browser**

Microsoft Internet Explorer 6 or above

### **CPU**

Minimum Intel® Pentium® 4 2.4 GHz or higher (Dual Core is recommended)

### **RAM**

Minimum 1 GB of RAM, 2GB or above is recommended

### **Network**

Minimum 10/100 Ethernet (Gigabit Ethernet is recommended)

### **Graphics Adapter**

AGP or PCI-Express, minimum 1024×768, 16 bit colors.

(We highly recommend to work above the 1024 x 768 resolution to get the full experience of the software)

- ***Make sure your display DPI setting is set to default at 96DPI***
- ***To set DPI value, right-click on desktop, choose "Settings" tab >> "Advanced" >> "General"***

## Contents Inside the Installation CD

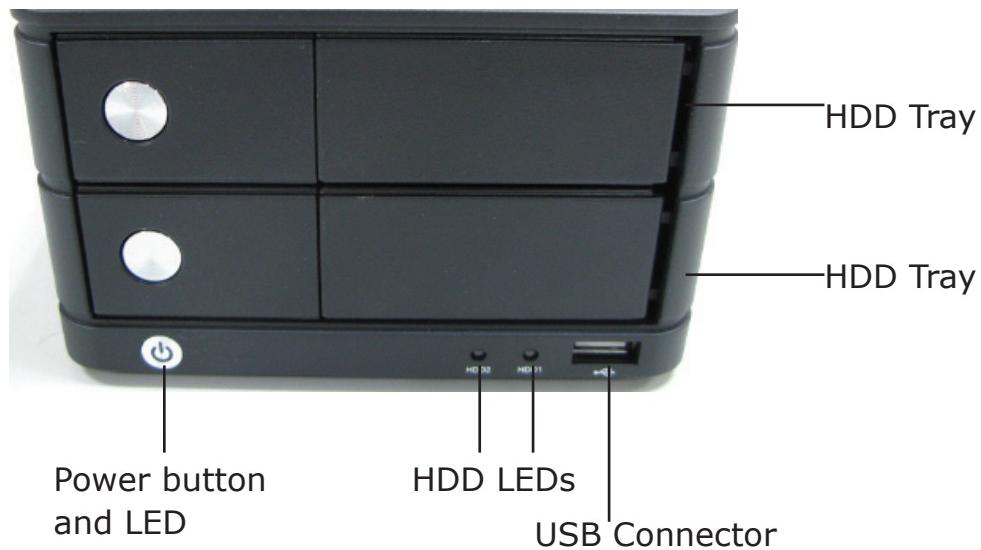
- Adobe Acrobat Reader
- NVR Search Utility
- User's Manual
- Quick installation Guide
- Datasheet

## Product Description

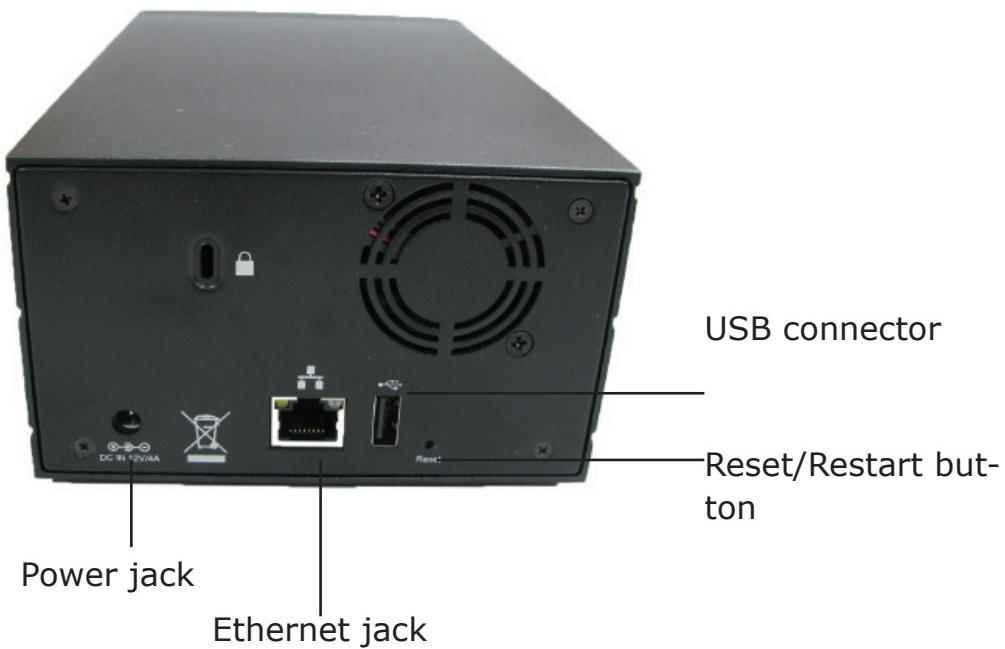
The NVR designed for use within a surveillance system, and performs recordings and playbacks pictures from network cameras in the system. It is designed for small scale applications such as retail store. Up to 4 cameras can be connected via a network and it is possible to record their camera pictures. It is possible to perform the settings or operate the NVR using a web browser installed on a PC connected to a network and live videos can be viewed on major mobile devices through its web browser. Recorded video can be played back from remote site by a PC. The NVR is compatible with most major brand cameras and its ability to automatically search and find the available cameras on the network can greatly reduce the user's effort when configuring the system.

- **Manage up to 4 Network Cameras**
- **Compatible with Major Brand Cameras**
- **High Quality Live/Playback Video**
- **Export Playback Videos to AVI**
  - **Two-way Audio**
  - **Smart Camera Search**
  - **Mobile Devices Remote Monitoring**
  - **Pure Web Based Administration**

## Hardware Illustration (Front)



## (Rear)



## HDD Installation

1. Push the silver button to release the HDD tray



2. Pull out the HDD tray



3. Place the HDD on the tray and secure the HDD with the screws at the bottom (as illustrated)



4. Push the tray back in the unit and press down the black bar to secure the tray



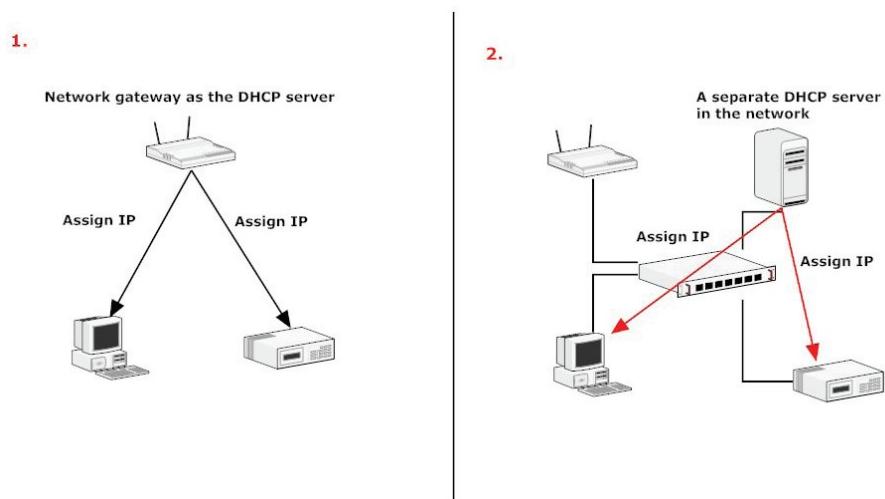
## Connect to the NVR

There are various ways you can connect to the NVR and below are the suggested methods for network setup:

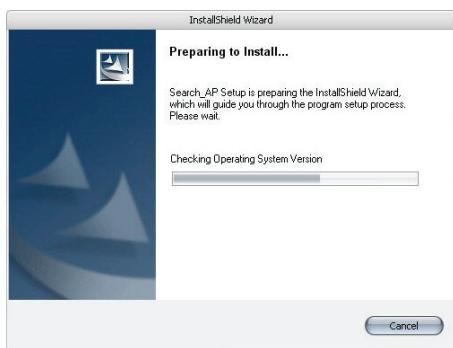
- The NVR is placed in a network with a DHCP server: Connect to the NVR by using **“Smart Device Search” Utility**.
- The NVR is placed in a network without DHCP server (or you are connecting to it directly): **Access the NVR with its default IP**.

### Use NVR Search Utility

When the NVR is on a corporate network, or a local area network where a DHCP server is already present. Run the “Smart Device Search” utility from a computer which is also on the same network and locate the NVR via its IP address assigned by the top-level DHCP server.

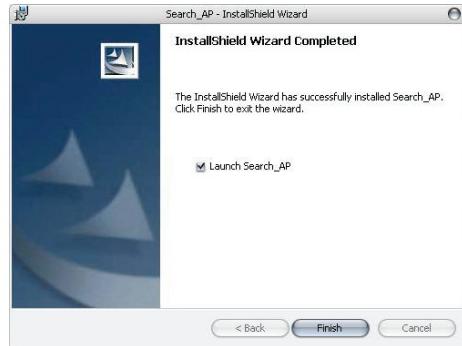


To begin, launch the “NVR Search” utility from the CD and proceed with the installation.

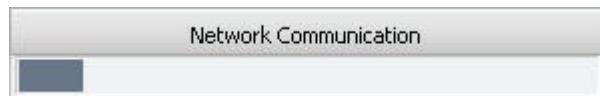


## 4 Channel (Basic) Network Video Recorder

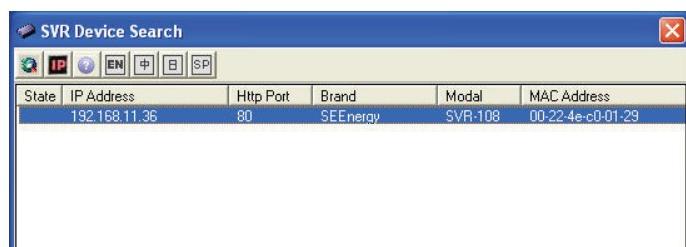
Once the installation is complete, check the "Launch the Search AP" option and click "Finish":



The search should start automatically and its status should be displayed:



The NVR should be located and its IP address should be displayed:  
Double-click on it and the program should automatically access the  
NVR's web administration page from your default browser

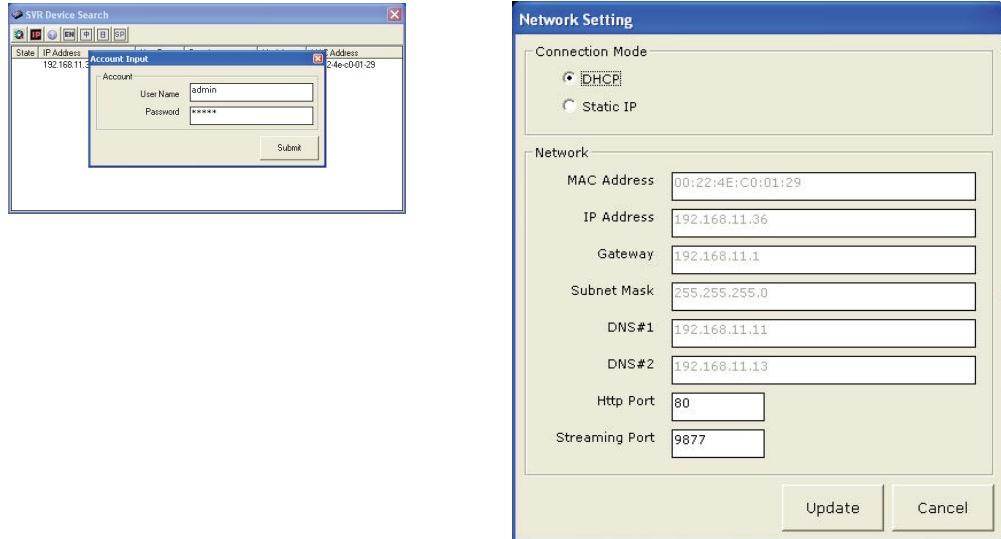


You may change NVR's IP address by click on the button highlighted below.

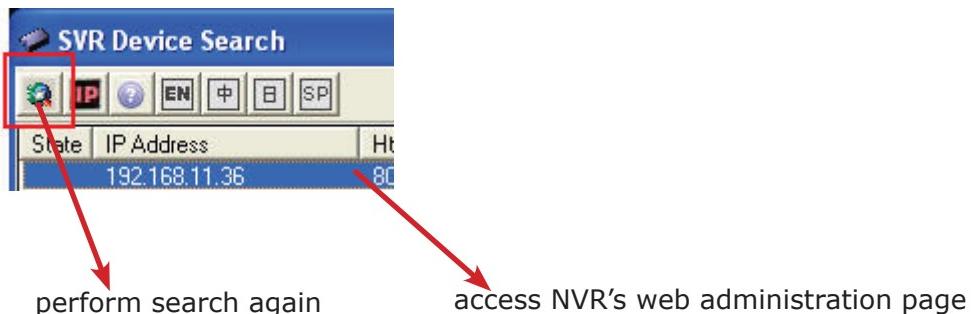


## 4 Channel (Basic) Network Video Recorder

You will be prompted for the NVR's login information before proceeding to change device's IP address.



You may click on the button highlighted below to perform search again. Or double-click on any of the search results to access NVR's web administration page



You should be prompted for the NVR's username and password. Enter its default username "**admin**" and password "**admin**" and then click "OK" to enter the system



\* The built-in DHCP server is intended to ease the installation between the NVR and the IP cameras. In the event there's no DHCP server (router) presented in the network, the NVR can act as DHCP server and assign IP to cameras.

However, if such configuration method is chosen, it's strongly suggested that the NVR is fully started first as startup time is different among different network devices.

Due to the reason that the IP cameras tend to finish booting up faster than the NVR, if the NVR is not fully started before IP cameras do, there is a very great chance that the cameras will not properly obtain IPs from the NVR.

In the event that users wish to setup everything on the network with static IP addresses, the built-in DHCP server function can be manually turned off under "Setup" >> "System Configuration" >> "Network Setup" and check off the DHCP server function.

**NVR Setup**

- System Configuration**
  - [Network Setup](#)
  - [Time and Date](#)
  - [Users Account](#)
  - [Group Privilege](#)
  - [Disk Setup](#)
- Channel Configuration**
- Event Configuration**
- Recording Configuration**
- System Options**

**Network Setting**

Connection Type:	<input checked="" type="button"/> Static IP
IP Address:	192 . 168 . 11 . 16
Subnet Mask:	255 . 255 . 255 . 0
Gateway:	192 . 168 . 11 . 2
DNS 1:	192 . 168 . 11 . 11
DNS 2:	168 . 95 . 92 . 1
HTTP Port:	80
Streaming Port:	10828
UPnP Port Forwarding:	<input type="checkbox"/> External Port: 6000 <input type="button"/> Test <input type="button"/> Force Change

Please enter at least one valid DNS !  
plan to use services (such as NTP se  
domain names)

**Optional Setting**

Device Name:	<input type="text"/>
--------------	----------------------

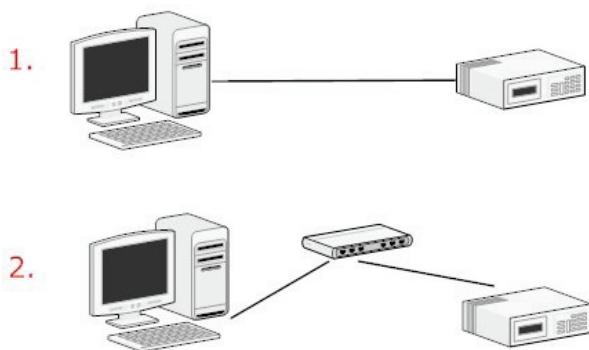
**DHCP Server**

DHCP Server:	<input checked="" type="radio"/> ON <input type="radio"/> OFF
DHCP Server Status:	OFF
Max. DHCP Client:	30 ( Max. 30 clients )

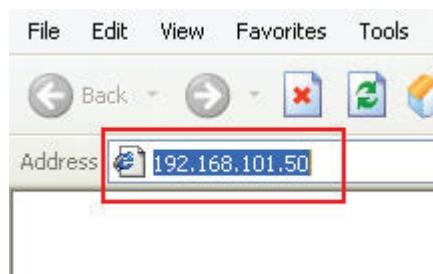
Apply

## Access NVR with its default IP address

The NVR comes with a pre-configured static IP “**192.168.101.50**”. However, it is only used when there is no DHCP server presented in the network. The NVR will turn on its DHCP server function and act as the DHCP server in the network. To connect to the NVR, use a PC that is on the same network over a switch or hub, or connect the PC directly to the NVR using a crossover CAT5 Ethernet cable.



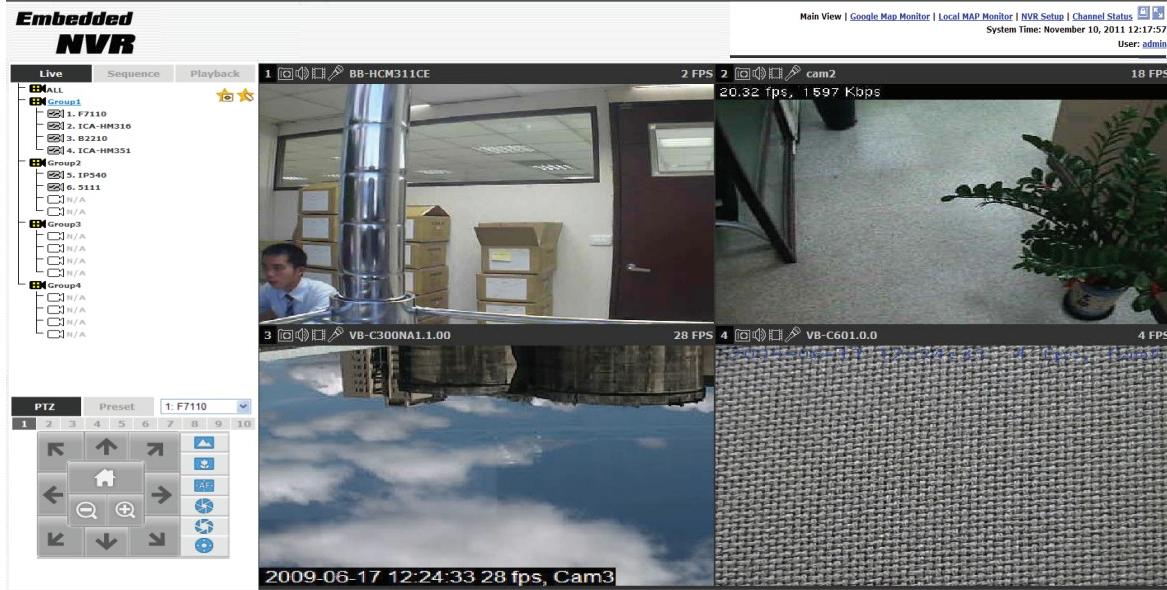
The PC that is connected directly to the NVR (or within the same local area network) should receive an IP from it. Simply access the NVR from your web browser with its IP address



Again, you should be prompted for the username and password. Enter its default username “**admin**” and password “**admin**” and then click “OK” to enter the system



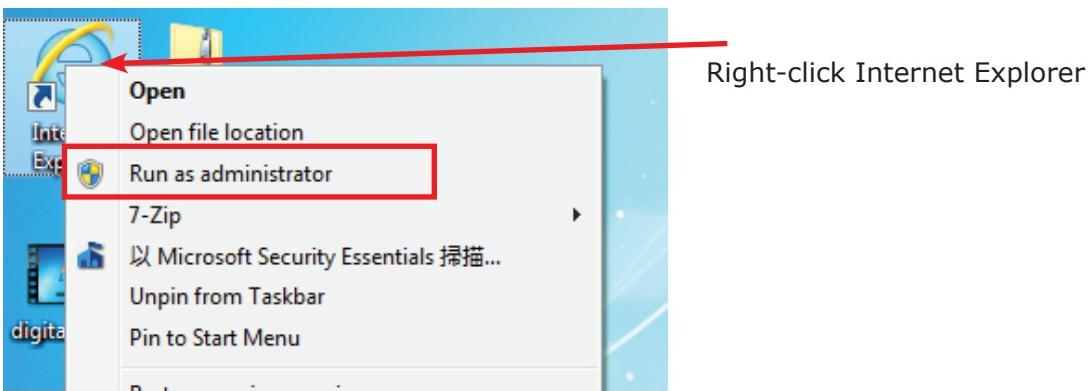
### 1. Live View



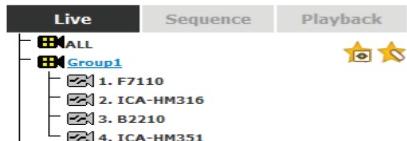
**The "Live View" page provides the following functions:**

- Retrieve camera's video stream
- Retrieve camera's status
- Perform Live Sequence Viewing
- PTZ Control
- Perform PTZ Preset Sequence viewing
- Perform manual recording
- Take snapshot
- Receive audio of a video stream
- Send audio
- Change web UI display language

**If you are using Windows Vista or Windows 7, please make sure you open Internet Explorer with the "Administrator" privilege or log in to Windows with "Administrator" account.**



## 1.1 Retrieve camera's video stream



The camera list is expanded and displayed on the Live View page.

- Click "All" to display videos in the quad-video mode
- Click on any camera to display video in single-view mode

## 1.2 Retrieve camera's status

The camera list can show each camera's current status. Each status is represented with different colors and their meanings are explained on the left

- Camera is connected
- Camera is NOT connected
- This channel has event triggered and is recording event
- Camera is current performing recording
- This channel has NOT been configured with any camera

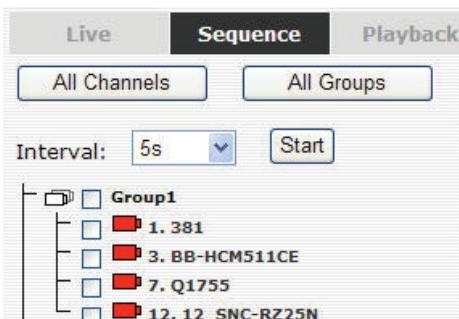
### 1.3 Perform Sequence Viewing

Sequence view is a function that allows you to view multiple video streams from certain cameras in sequence automatically without having to select them one by one.

To perform sequence view, select “SEQ View” from the upper-left hand corner



Next, select one or more camera(s) or camera group(s) for sequence viewing



Then select dwell interval from the drop-down menu



Finally click “Start” to start sequence viewing

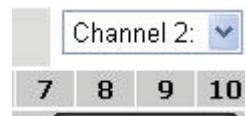
\* Click “All Channels” to quickly select all available channels and start sequence view in single-view mode.

## 1.4 PTZ Control

PTZ control provides functions to pan, tilt, zoom a PTZ camera as well as the ability to adjust camera focus and iris



Camera(s) that are currently being selected for live viewing will be listed in the PTZ drop-down menu. Simply select a camera then use the PTZ control panel to control the camera



The bar shown below allows you to control the pan/tilt speed



## 1.5 Perform PTZ Preset Viewing

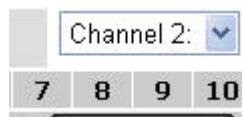
There are three functions provided in the "Preset" section:

- Perform preset point viewing of a particular camera
- Auto pan a particular camera
- Perform preset point sequence viewing



### Preset Point Viewing

Start by selecting a PTZ camera from the drop-down list:



Its available PTZ preset points will be listed in the drop-down list shown below:



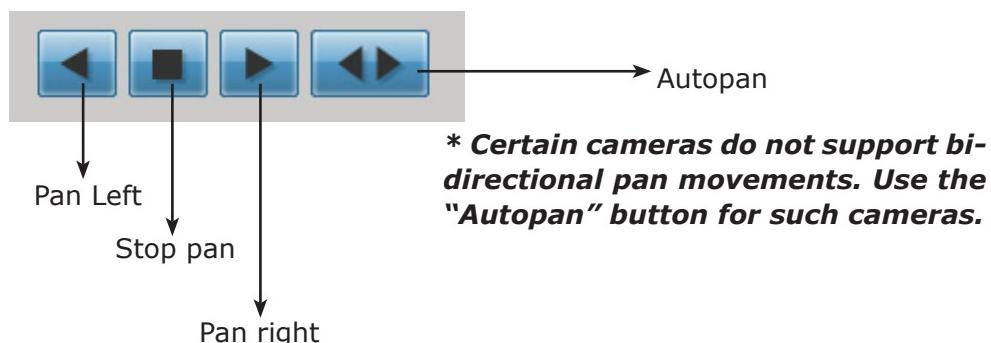
Select a preset position from the drop-down list and click "Go to" to move the live view to that position

## Auto Pan Viewing

Start by selecting a PTZ camera from the drop-down list:

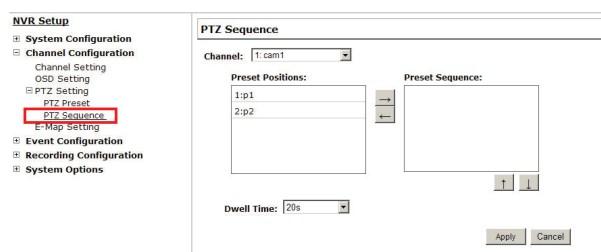


Use the Auto Pan control buttons to pan right, left and stop auto pan

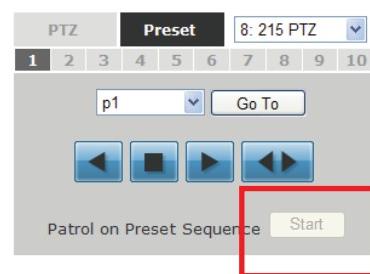


## Preset Point Sequence Viewing

This function allows you to view multiple preset points videos of a camera without having to select them one by one. Once you have defined the preferred preset points in “**Channel Configurations**” >> “**PTZ Setting**” >> “**PTZ Preset Sequence**” under the “**Setup**” menu, click “Start” here and the recorder will begin to display videos from those preset points in sequence automatically until you click “Stop”



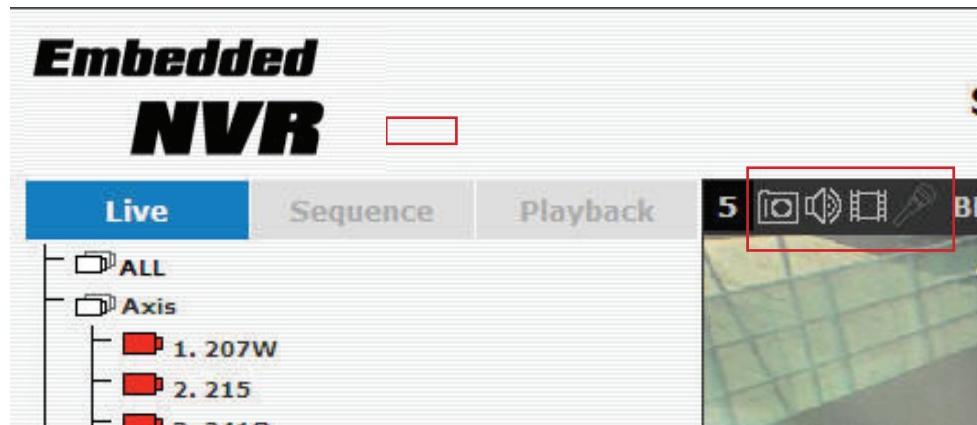
In the Setup page



In the Live View

## 1.6 Live Video Control Buttons

Each live video window comes with control buttons with functions described below:



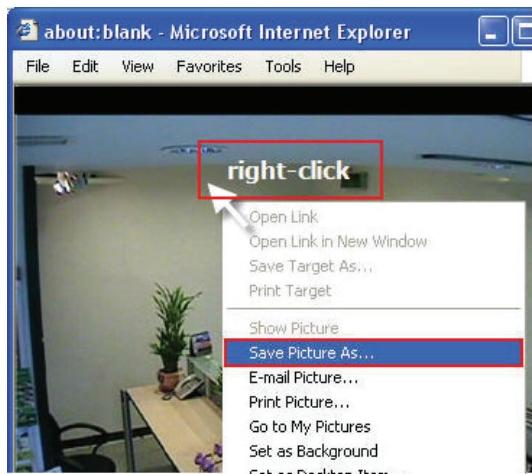
- Take a snapshot of a live video
- Turn on/off audio of a live video
- Start/stop recording of a live video (manual recording)
- Audio post function



- Full screen view of a live video
- Keep aspect ratio and true size
- Keep aspect ratio

**Take a snapshot of a live video**

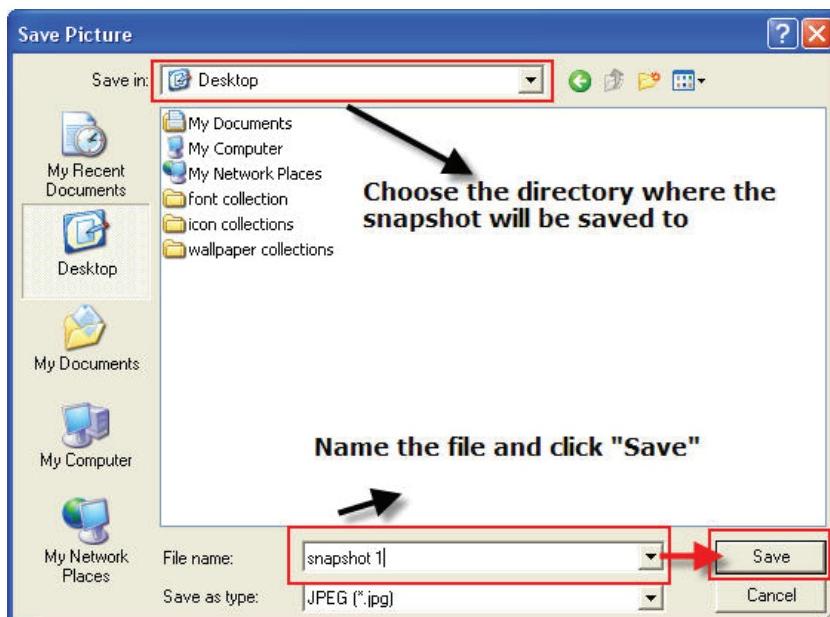
To take a snapshot of a live video, click the  button and the snapshot of the video will be displayed in a pop up window shown like below



\* If you are running Windows Vista or 7, please make sure IE is run with the "Administrator" privilege in order for this function to work properly.

Right-click anywhere on the image and select "Save Image as" from the pull-down menu

In the pop up dialog, name the image file and choose which directory the image will be saved to and click "Save"



## Full Screen View of a Live Video

To view a video in full screen, click the  button. To exit full screen video, double-click anywhere on the video.

## Turn On/Off Audio of a Live Video

You can retrieve audio from a particular camera. Simply click the  button to do so.

The button will show in different color once the audio is turned on.  Click on it again to turn off audio.

## Start/Stop Recording of a Live Video

You can manually start or stop recording of a live video by using the  button.

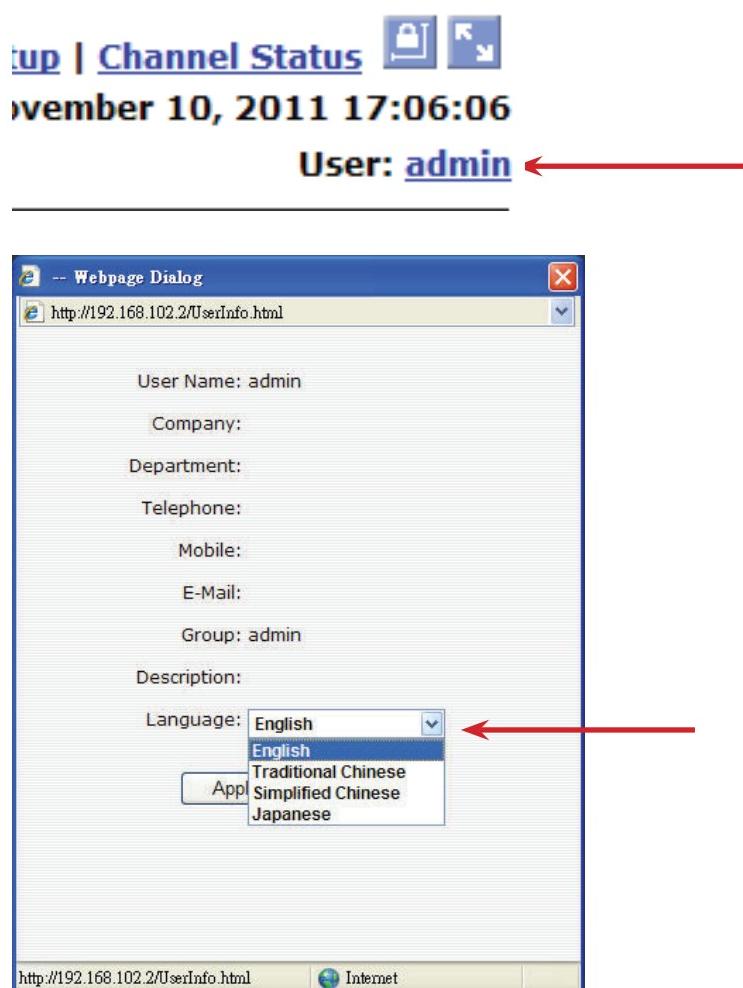
The button will show in different color once the recording is started manually.  Click on it again to stop recording.

## Audio post

This function allows user to speak from a PC through a microphone and the audio can be played at the camera side if it has a speaker connected to it.

## 1.7 Change Web UI Display Language

You can change the web UI display language from the current login username link located at the upper-right hand corner. Click on the link opens up a new window which displays detail information about the user as well as a drop-down menu which lets you change the display language.



## 1.8 Live View through iPhone

You can use iPhone and perform single channel live view to the NVR by using its Safari browser. To be able to view the live video through the Safari browser, make sure "javascript" is on under "Settings" >> "Safari" >> "Javascript"



Once Javascript is enabled, click the "Home" button on the iPhone to go back to the home screen and open the Safari browser



Type in the IP address of the NVR in the address bar



## 4 Channel (Basic) Network Video Recorder

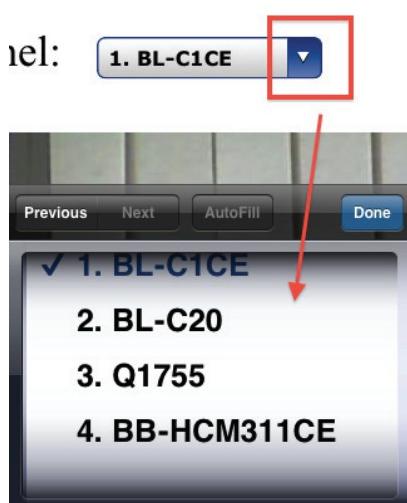
You should be prompted to enter the username and password to access the NVR



Upon successful login, you should see the live view video of the first channel



Click on the "Channel" drop-down menu to select other cameras



## 4 Channel (Basic) Network Video Recorder

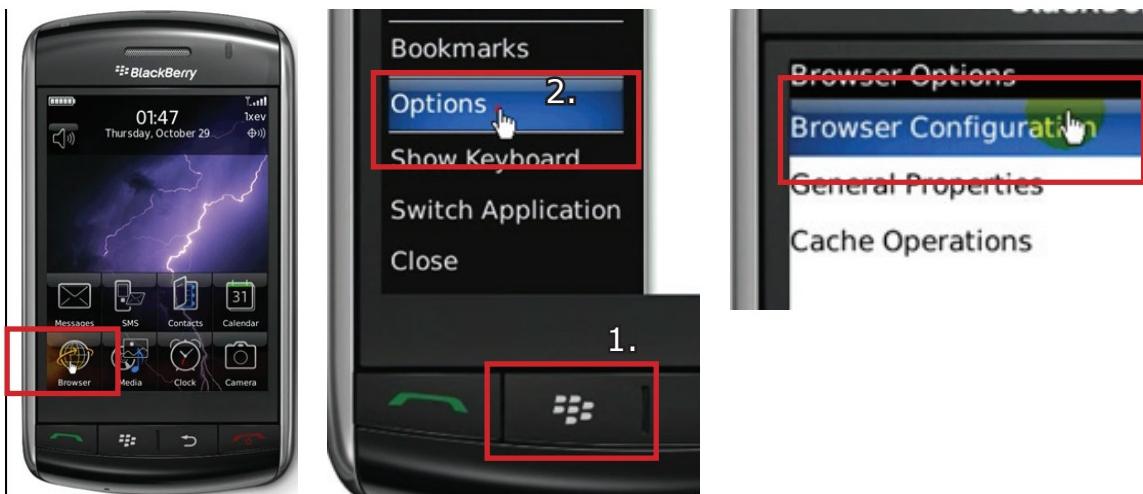
If a PTZ camera is selected, the corresponding control buttons will display (control PT only)



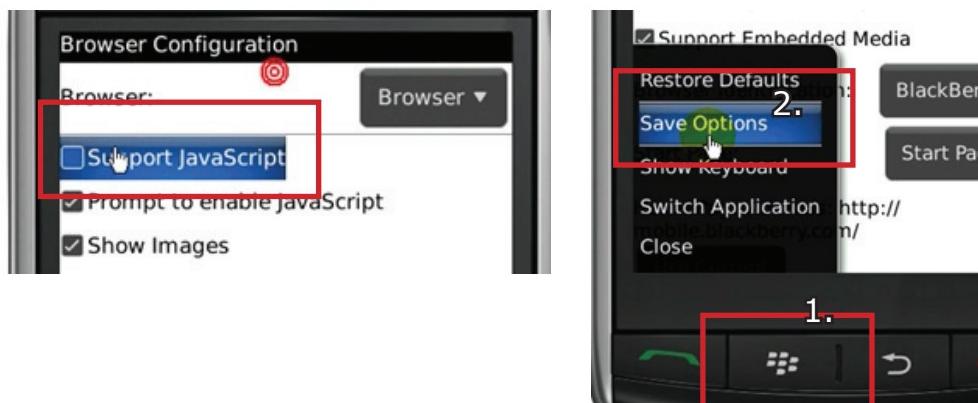
\* Please note that this function is camera dependent and is not available to all cameras. Certain cameras do not allow adjusting image size and the selection "Auto" will be used.

### 1.9 Live View through BlackBerry Phones

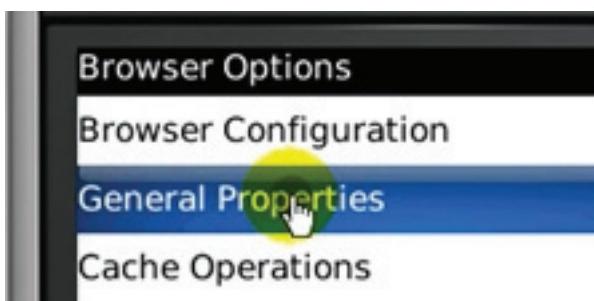
You can use BlackBerry and perform single channel live view to the NVR by using its Safari browser. To be able to view the live video through its browser, make sure "javascript" is enabled under "Browser" >> "Menu button" >> "Options" >> "Browser Configuration"



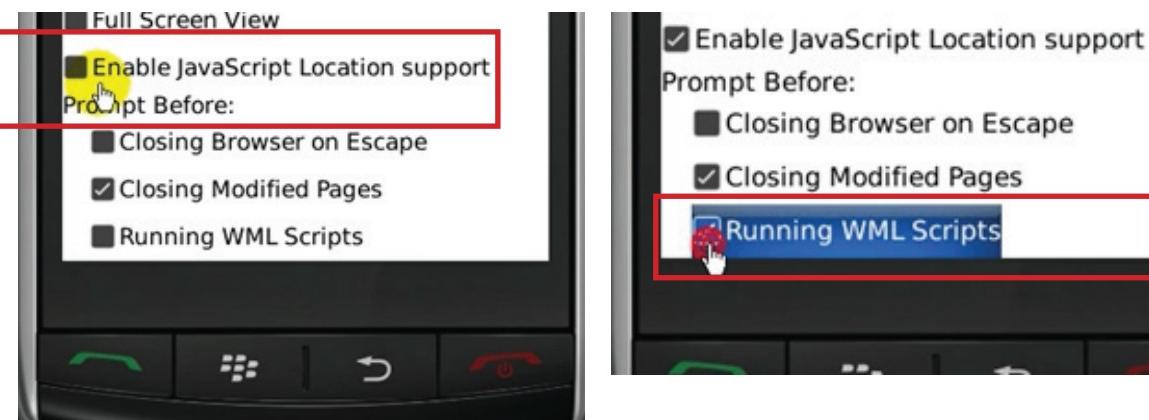
Enable the "Support Javascript" option and click the menu button and click "Save Options"



Go to "General Properties"



Make sure two options illustrated below are enabled



Press the menu button and click the "Save Options" to save settings



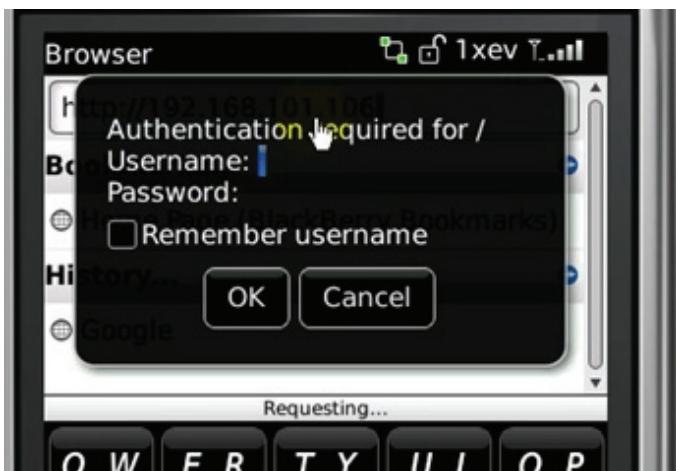
Press the button highlighted below to go back to the browser



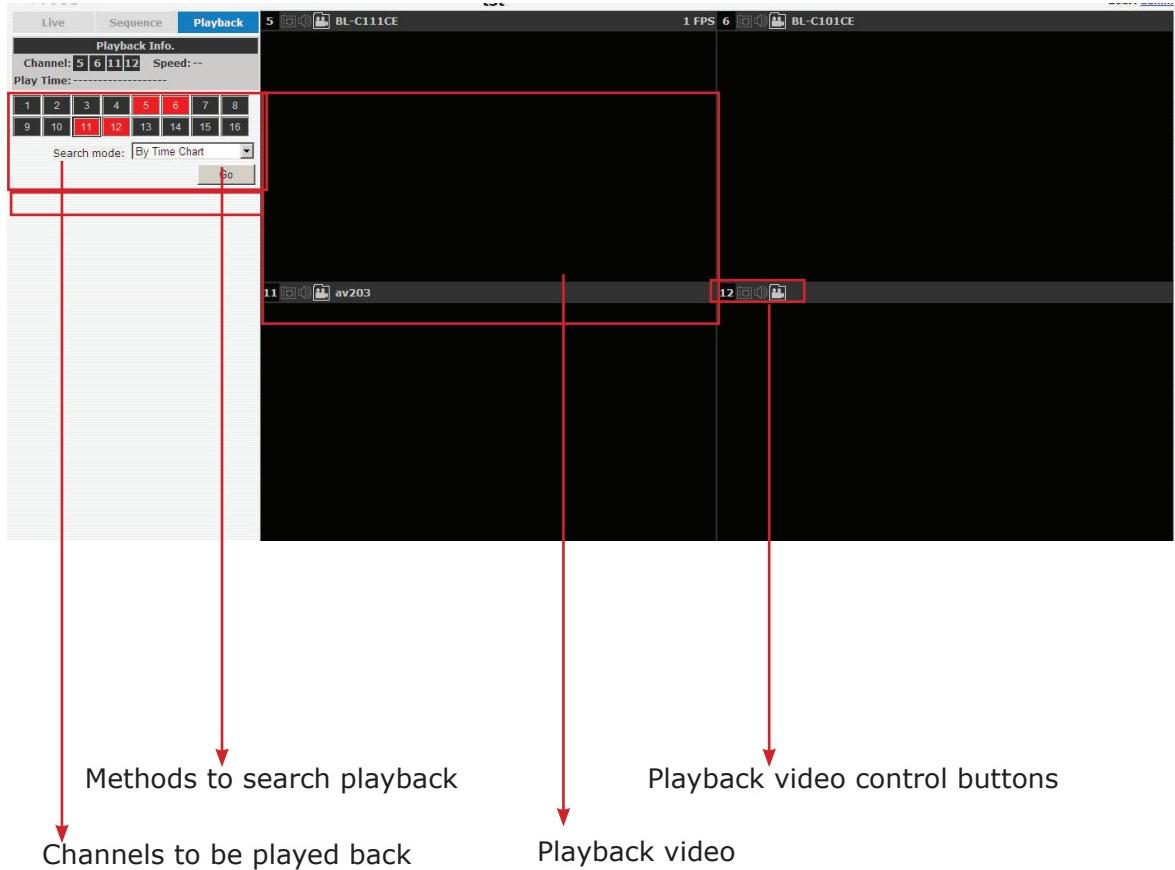
Type in the IP address of the NVR in the address bar



You should be prompted to enter its username and password for access



## 2. Playback



Playback is a function that allows you to play one or more videos that were previously recorded by a chosen recording method or due to an event trigger. The NVR offers synchronized playback from up to 4 channels and various types of search methods are provided to help you find the footage you need quickly.

You can turn on or off the audio of a recorded video at your choice if audio was also recorded during the recording of the video.

Playback video can be viewed in full screen and snapshots can be taken and saved during a video playback.

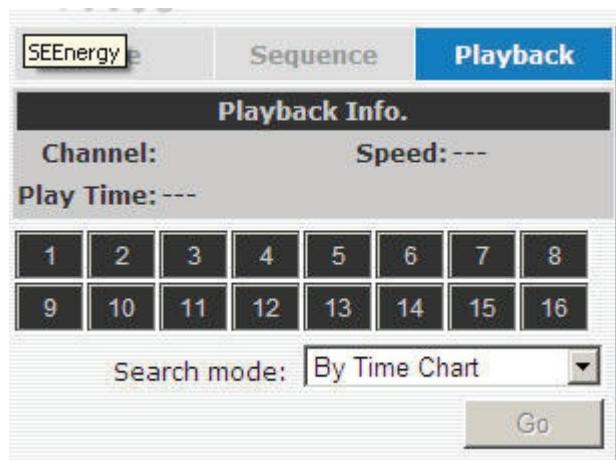
## 2.1 Methods to Search Playback Videos

The NVR offers three methods to quickly help users find videos that were previously recorded:

- Search by time: *Specify a time range and search videos recorded within that range*
- Search by event: *Find videos that were recorded due to event triggers*
- Play by start time: *Enter a specific time a video was recorded to start playing back the video*

### Search by time chart

- Start by selecting which channel(s) you would like to perform a search on:



\* Selected channels will be marked in red



- Select “Search by time chart” from the “Search Method” drop-down list and click “Go” to start the search:



- Results will then be displayed in a “Date/Channel” table and boxes marked in blue represent videos found in those dates:

Date:			
CH1	Ch2	CH3	CH4
			1
			2
			3
			4
			5
			6
			7
			8
			9
			10
			11
			12
			13
			14
			15
			16
			17
			18
			19
			20
			21
			22
			23
			24
			25
			26
			27
			28
			29
			30
			31

- Click on any blue cell box should direct you to the hour/channel table if there were multiple videos recorded during that date:

CH1	Ch2	CH3	CH4
			1
			2
			3
			4
			5
			6
			7
			8
			9
			10
			11
			12
			13
			14
			15
			16
			17
			18
			19
			20
			21
			22
			23
			24

\* Videos from other cameras that are recorded on the same date will also be displayed

- Click on the cell box again will start playing back the videos if you have reached the end of search results:



- Videos found from other cameras that were recorded at the same time will also be played.

## Search by event

- Start by selecting which channel(s) you would like to perform a search on:



\* Selected channels will be marked in red



- Select "Search by event" from the "Search Method" drop-down list and click "Go" to start the search:
- Results will then be listed like what is shown below (displays the oldest record top down). Click on a particular result to start the playback:

The screenshot shows a list of search results for June 17, 2009, with 30 results displayed. The results are as follows:

```

CH2 MD: 2009/06/17 15:05:52
CH3 MD: 2009/06/17 15:06:46
CH4 MD: 2009/06/17 15:19:33
CH4 MD: 2009/06/17 15:19:47
CH4 MD: 2009/06/17 15:22:31
CH4 MD: 2009/06/17 15:23:08
CH4 MD: 2009/06/17 15:23:54
CH4 MD: 2009/06/17 15:24:16
CH4 MD: 2009/06/17 15:24:27
CH4 MD: 2009/06/17 15:24:48
CH4 MD: 2009/06/17 15:24:58
CH4 MD: 2009/06/17 15:25:46
CH4 MD: 2009/06/17 15:26:35
CH4 MD: 2009/06/17 15:26:52
CH4 MD: 2009/06/17 15:27:02
CH4 MD: 2009/06/17 15:27:22

```

<1 2 >

Below the results are buttons for "Next Search", date/time selection, and search parameters.

\* You can click "Next Search" to display the next 15 results.

- You may also specify a new start time to search and display results from then on. You can restrict the number of results to be displayed at once (max. 30) and perform the search again

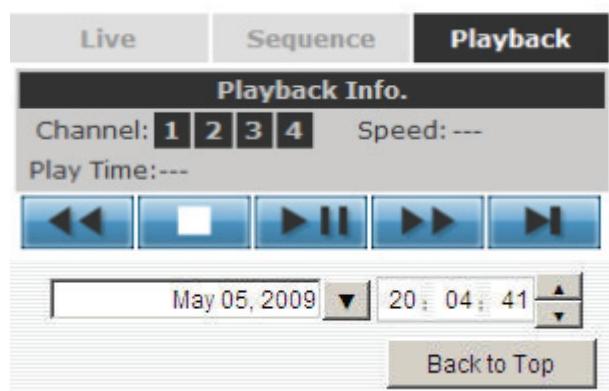


### Play by specific time

If you know when a recording was taken place, you may choose the "Play by start time" from the "Search Method" drop-down list



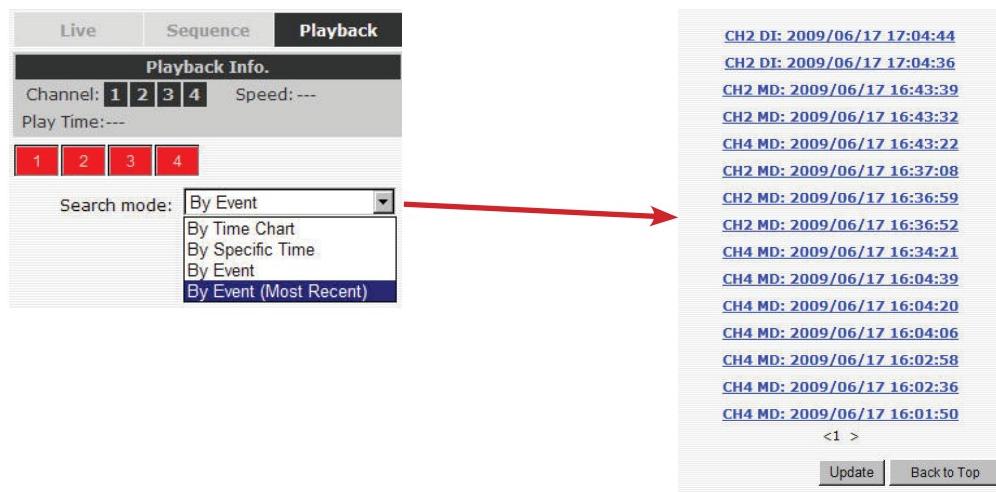
Then you will be prompted to enter a specific time and date for the recorded video.



Use the button to select month, date, and year

**Search by event (Most Recent)**

This function quickly displays the most recent event recordings from the selected channels, displaying the most recent result top down. You may click "Update" to update the list to display the most recent result



## 2.2 Export Playback Videos to AVI Files

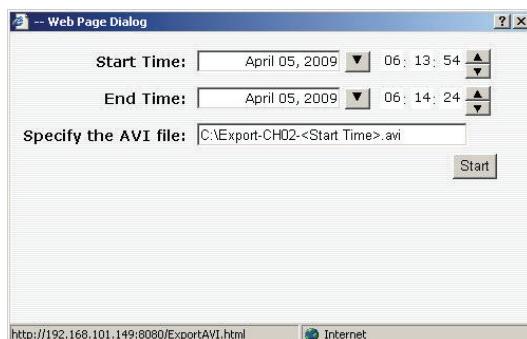
User can export the recorded playback videos stored on the NVR to a local computer and save them in AVI file format. The files can then be played on the PC by a 3rd party media player such as VLC player or Windows Media player.

Once you locate the recorded videos with steps described in the previous section, hit the "Export AVI" button on a video window of the video you wish to export.



\* If you are running Windows Vista or 7, please make sure IE is run with the "Administrator" privilege in order for this function to work properly.

A new dialog will pop up and allows you to specify the time frame (or length) of the video you wish to export

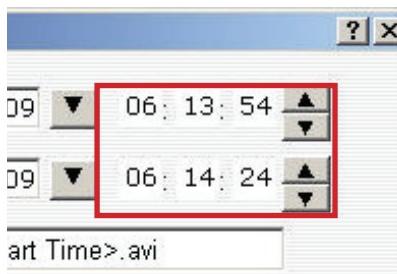


Click the button to pull down the calendar to help you specify the month, date and the year

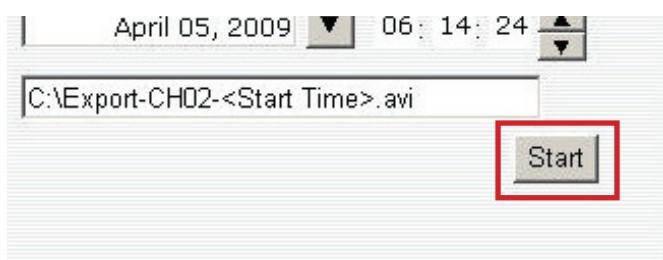


## 4 Channel (Basic) Network Video Recorder

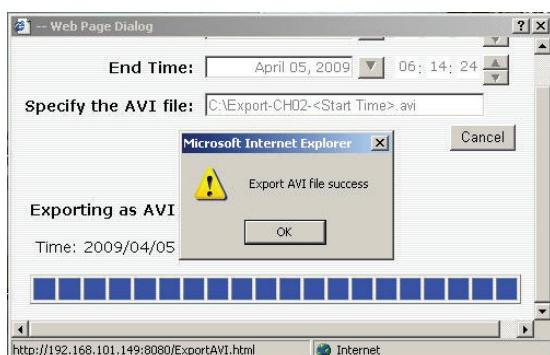
Specify the starting and ending hours of the video by entering numbers in the text boxes



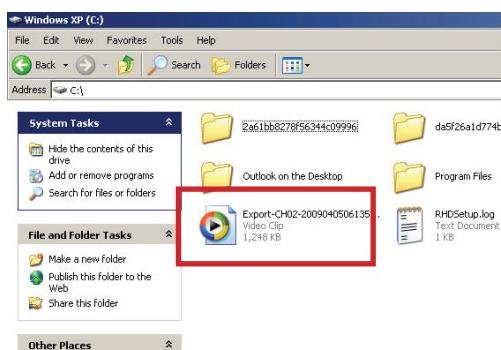
Hit the "Start" button to start exporting. The file will be automatically named and saved under the C:\ partition



You will be notified once the process is completed successfully



The exported AVI file will be saved under the C partition

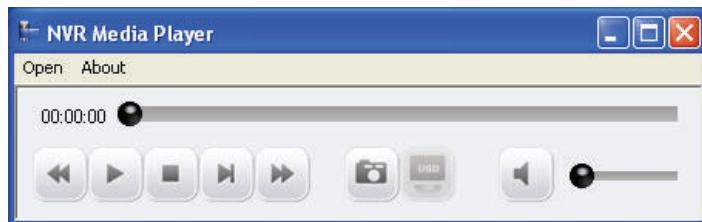


\* *ffdshow is required in order to play the exported AVI file with Windows Media Player. You can get it at "<http://sourceforge.net/projects/ffdshow-tryout/>" to download the "ffdshow\_beta6\_rev2527\_20081219.exe".*

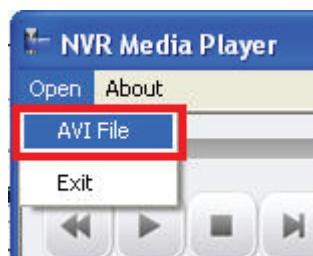
## 2.3 Play Export Playback Videos with NVR Media Player

You can also use the SEEnergy NVR Media Player that is available on the CD to play the exported AVI files. This can save you the trouble of installing third-party media player or codecs when playing the exported AVI videos.

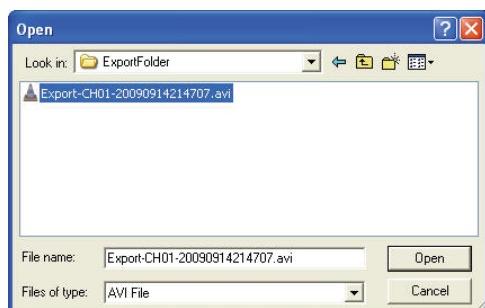
Run the NVR Media Player on the CD:



Click "Open" >> "AVI File"



Locate the exported AVI file, and click "open". (normally under "C:\ExportFolder")



The video will then start playing



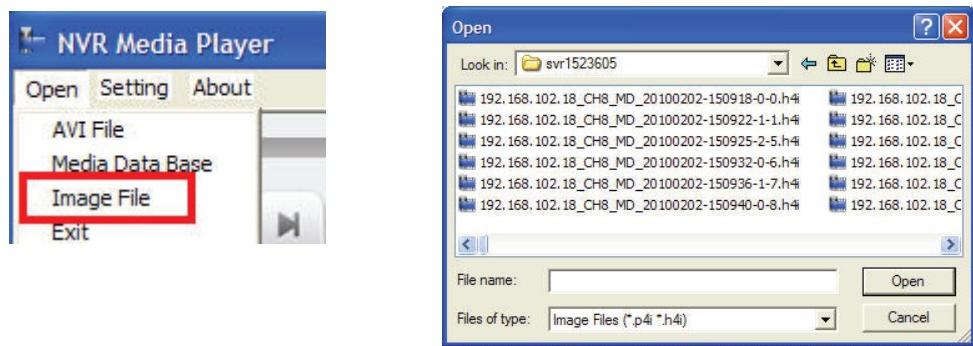
## 4 Channel (Basic) Network Video Recorder



### 2.4 Open Event Snapshot images with NVR Media Player

The NVR sends snapshots that are taken when an event occurs to a destined FTP server or mail recipient. These type of snapshot images are saved in a proprietary image file format, h4i or p4i, and can only be opened by the NVR media player.

To do so, Select “Open” from the top menu then select “Image File”. A new dialog should be displayed which lets you locate the image file.



## 3. System Setup

### 3.1 System Configurations

The “System Configurations” page provides users options to setup the device quickly and properly. After properly configuring all settings in all the sub-pages, users should expect a fully working network video recorder that is ready to manage cameras on the network. We will start by configuring its network settings to make sure it works correctly in your network. Next, we will help you adjust the system time so videos will be recorder with correct timestamp. To better secure the system for unwanted disturbance, we will guide you on setting up user’s account and privileges to prevent settings gets altered by users other than the system administrator. Lastly, we will tell you what you should expect after installing a hard disk and how to prepare the hard disk for the video recording.

#### 3.1.1 Network Settings

<b>Setup</b>	<b>Network Setting</b>
<b>System Configuration</b>	
Network Setup	Connection Type: <input type="text" value="DHCP"/>
Time and Date	IP Address: <input type="text" value="192.168.102.2"/>
Users Account	Subnet Mask: <input type="text" value="255.255.252.0"/>
Group Privilege	Gateway: <input type="text" value="192.168.101.1"/>
Disk Setup	DNS1: <input type="text" value="192.168.11.11"/>
<b>Channel Configuration</b>	DNS2: <input type="text" value="192.168.11.13"/>
<b>Event Configuration</b>	HTTP Port: <input type="text" value="80"/>
<b>Recording Configuration</b>	Streaming Port: <input type="text" value="9877"/>
<b>System Options</b>	UPnP Port Forwarding: <input type="checkbox"/> External Port: <input type="text" value="6000"/> <input type="button" value="Test"/> <input type="button" value="Force Change"/>
<b>Optional Setting</b>	
Device Name: <input type="text" value="tst"/>	
<input type="button" value="Apply"/>	

You need to adjust settings in this page for the device to work properly in your network. It is critical that settings here are configured correctly based on your network configurations so that the recorder can be administered through the local area network and cameras can be connected from it.

By default, the recorder is set to obtain IP address from DHCP server, it should be sufficient in most network environments, and most likely you should not need to alter anything in this page. To locate the recorder, simply use the NVR search utility with steps described in page 12.

If you wish to set the recorder to use a static IP address in your local area network,

1. Choose "Static IP" from the "Connection Type" drop-down menu
2. Enter the IP address, subnet mask, default gateway address and DNS server address for the recorder
3. Enable "DHCP Server" under "DHCP Server" if you wish to use the recorder as a DHCP server, or leave it disabled if there is already a DHCP server in the network 
4. Click Apply for the settings to take effect

Network Setting			
Connection Type:	Static IP		
IP Address:	192	.	168
Subnet Mask:	255	.	255
Gateway:	192	.	168
DNS1:	192	.	168
DNS2:	192	.	168
HTTP Port:	80		
Streaming Port:	9877		
UPnP Port Forwarding:	<input type="checkbox"/>	External Port:	6000  
Optional Setting			
Device Name:	tst		
DHCP Server			
DHCP Server:	<input type="radio"/> ON	<input checked="" type="radio"/> OFF	



The recorder can detect the presence of a DHCP server upon startup. It sets itself to use static IP address if there is no DHCP server currently presented in the network. Its DHCP server function is also turned on at the same time to assign IP addresses to cameras that are later connected to the network

 You can manually turn off the DHCP server function if you wish to use a separate DHCP server

Current DHCP Clients			
IP Address	Name (if any)	MAC Address	Time when IP obtained



 Change the recorder's IP address would require the recorder to restart. Restart the device under "system Options" >> "Maintenance" for the settings to take effect.

### 3.1.2 DDNS Service

DDNS, which stands for "Dynamic DNS", is a method, protocol, or network service that provides the capability for a networked device, such as a router or computer system (in this case, the NVR) using the Internet Protocol Suite, to notify a domain name server to change, in real time, the active DNS configuration of its configured hostnames, addresses or other information stored in DNS.

A popular application of dynamic DNS is to provide a residential user's Internet gateway that has a variable, often changing, IP address with a well known hostname resolvable through standard DNS queries.

This is useful if the NVR is placed on the Internet with a dynamic public IP, which once the DDNS is properly setup, users can access the NVR remotely with the DDNS domain name without worrying if the IP has changed or not.

**NVR Setup**

- System Configuration**
  - Network Setup
  - DDNS Service
  - Time and Date
  - Users Account
  - Group Privilege
  - Disk Setup
- Channel Configuration**
- Event Configuration**
- Recording Configuration**
- System Options**

**Dynamic DNS Service**

Enable DDNS Service  
Server Address:

Domain Name:   
User ID:   
Password:

Connection Status: Disconnected

 Please make sure a valid DNS server has been configured under the "Network Setting" page in order for this function to work properly.

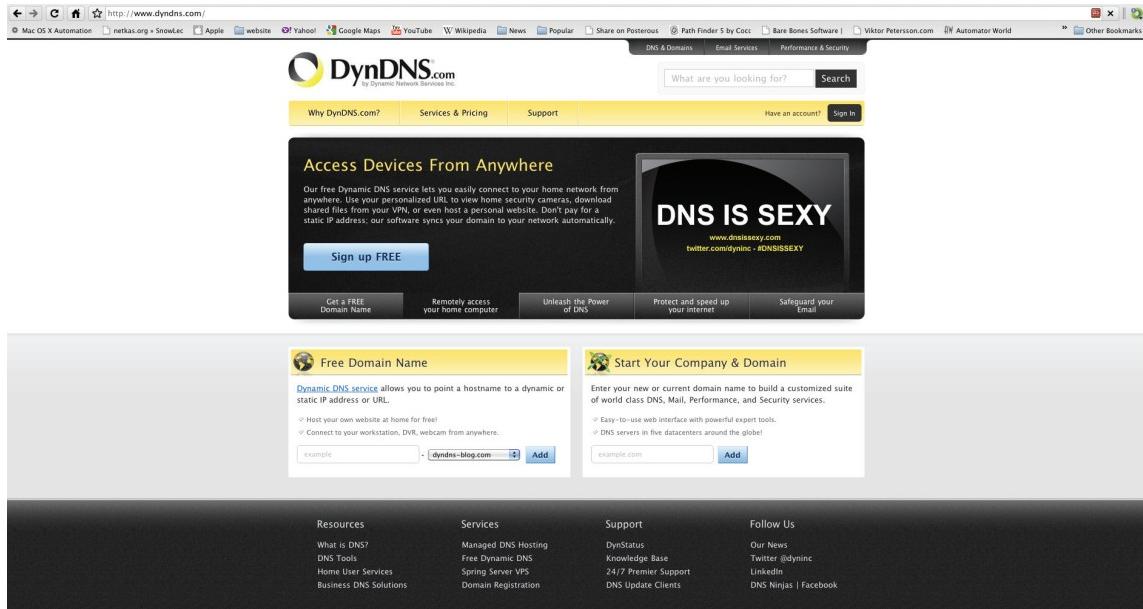
 The NVR currently only works with free DDNS service provided by "DynDNS". For more information, please go to [www.dyndns.com](http://www.dyndns.com)

 If the NVR is placed behind a router or Internet gateway, please make sure port forwarding for port 80 is configured on the router or the gateway in order for the DDNS function to properly register with the service.  
**It's often suggested to use the DDNS function in the router/gateway for such case instead.**

 Once you have the DDNS function successfully up and running, please DO NOT forget to configure port forwarding for the NVR web port (default 80) and the streaming port (default 9877) in the router/gateway for remote viewing. You can then type in <http://yourddnsdomain> in the browser to access the NVR remotely for live view.

## 4 Channel (Basic) Network Video Recorder

In order to properly configure the DDNS service function, please register a free DDNS domain name and account from DynDNS first. Go to [www.dyndns.com](http://www.dyndns.com) from the browser to do so.



Click on the “Signup FREE” button to begin



Choose the FREE service on the left

Sign up now and get remote access to home computers and devices



## 4 Channel (Basic) Network Video Recorder

Fill in the necessary fields as illustrated below:

**Add New Hostname**

Note: You currently don't have any active [Dynamic DNS Pro](#) in your account. You cannot use some of our Host Service features. Paying for an Dynamic DNS Pro will make this form fully functional and will add several other features.

Hostname:	<input type="text" value="myddns"/> <input type="button" value="dyndns.org"/>	Enter a desired hostname here Select a desired sub-domain from the drop-down menu
Wildcard Status:	Disabled <a href="#">[Want Wildcard support?]</a>	
Service Type:	<input checked="" type="radio"/> Host with IP address <a href="#">[?]</a> <input type="radio"/> WebHop Redirect <a href="#">[?]</a> <input type="radio"/> Offline Hostname <a href="#">[?]</a>	
IP Address:	<input type="text" value="60.250.139.170"/> <i>Your current location's IP address is 60.250.139.170</i> <small>TTL value is 60 seconds. <a href="#">Edit TTL</a>.</small>	
Mail Routing:	<input type="checkbox"/> Yes, let me configure Email routing. <a href="#">[?]</a>	
<b>What do you want to use this host for?</b> Select services and devices you would like to use with this hostname.		
Work From Home Office or VPN: <div style="border: 1px solid red; padding: 5px;"> <input type="checkbox"/> vpn <input type="checkbox"/> remote file access <input type="checkbox"/> remote desktop <input type="checkbox"/> mail server <input type="checkbox"/> web server  <input type="checkbox"/> chat server <input type="checkbox"/> ftp backup <input type="checkbox"/> ssh <input type="checkbox"/> database <input type="checkbox"/> voip         </div>		
Hosting and Design For Web Sites and Blogs: <div style="border: 1px solid red; padding: 5px;"> <input type="checkbox"/> blog <input type="checkbox"/> gallery <input type="checkbox"/> wiki <input type="checkbox"/> portfolio <input type="checkbox"/> ecommerce <input type="checkbox"/> web page         </div>		
Remote Access For Devices: <div style="border: 1px solid red; padding: 5px;"> <input type="checkbox"/> dvr <input type="checkbox"/> webcam <input type="checkbox"/> data storage <input type="checkbox"/> cctv <input type="checkbox"/> printer <input type="checkbox"/> alarm and security  <input type="checkbox"/> thermostat <input type="checkbox"/> weather station <input type="checkbox"/> game server <input type="checkbox"/> home automation         </div>		

*Click to go to the next step*

**Add To Cart**

The page will check whether the hostname you entered has been used by another user or not as soon as you click the "Add to Cart" button. If you see below message, simply enter a different and click "Add to Cart" again

Hostname:	<input type="text" value="myddns"/> <input type="button" value="dyndns.org"/>
<i>This hostname already exists. It may be in use by another customer.</i>	

## 4 Channel (Basic)

### Network Video Recorder

Once you get to the next page, fill in the necessary fields as illustrated below

Shopping Cart

**Host seenergy88.dyndns.org added to cart. Finish FREE checkout to activate.**

Your cart contains **free services only**. You will not be asked for credit card information.

<b>⚡ Upgrade Options</b>	
Free accounts allow only five Dynamic DNS hosts.	
<ul style="list-style-type: none"> <li>• To add more and enjoy <a href="#">additional benefits</a> for only \$15.00 per year, <a href="#">purchase Dynamic DNS Pro</a>.</li> <li>• To get Dynamic DNS for <a href="#">your own domain</a>, use <a href="#">Custom DNS</a>.</li> </ul>	
<b>Dynamic DNS Hosts</b>	
<a href="#">seenergy88.dyndns.org</a>	remove
\$0.00	
Have a coupon? <a href="#">Log in.</a>	
Sub-Total: \$0.00	
Order Total: \$0.00	

**Create account or log in to continue**

Create an username and a password here. This will be used in the NVR's configuration. Enter a valid email address as well.

Username: <input type="text" value="seenergy88"/>
Password: <input type="password" value="*****"/>
Confirm password: <input type="password" value="*****"/>
Email: <input type="text" value="support@seenergy.com.tw"/>
Confirm email: <input type="text" value="support@seenergy.com.tw"/>

Already Registered?	
Username <input type="text"/>	Log in
Password <input type="password"/>	
<a href="#">Forgot your password?</a>	

Subscribe to:  DynDNS.com newsletter  
(1 or 2 per month)  
 Dyn Inc. press releases  
 Remove HTML formatting from email

 **TRUSTe**  
CERTIFIED PRIVACY

Security Image:



Enter the numbers from the above image:

Enter the security code:

I agree with the [acceptable use policy \(AUP\)](#) and [privacy policy](#).

Go back to the NVR's DDNS service configuration page under "Setup" >> "System Configuration" >> "DDNS Service".

Fill in the domain name you picked during the registration in the "Domain Name" field and the username/password you created in the "User ID" and "Password" field and click "Apply" to finish

### NVR16CH Network Video Recorder

**Dynamic DNS Service**

Enable DDNS Service

Server Address:

Domain Name:

User ID:

Password:

You can click the "Check DDNS Status" button to check the DynDNS service status. If you are getting a "Disconnected" message, it means that DDNS service server is down or the NVR is not connected to the Internet. If everything is ok normally, you should be prompted with a success message

### NVR16CH Network Video Recorder

**Dynamic DNS Service**

Enable DDNS Service

Server Address:

Domain Name:

User ID:

Password:

Connection Status: Disconnected

**Message from webpage**

 Connect DDNS successful

Notice the “Connection Status” displays the status of whether the NVR has been able to successfully update its current public IP address to the DynDNS server

The screenshot shows a user interface for a Network Video Recorder. At the top, there are fields for "User ID" (containing "shiangshiang13") and "Password" (containing several dots). Below these is a red-bordered box containing the text "Connection Status: Disconnected". At the bottom of the interface is a blue button labeled "Check DDNS Status".

The NVR will automatically check with the DynDNS server once every hour and update its latest public IP to the server. The “Apply” button does the same thing which if you see the “Disconnected” status, you can use it to manually check with the server without waiting for the NVR to update itself in the next hour. **However, it is advised not to do so too often as DynDNS disallow repetitive updates within a short period of time and the account will be banned if such action is detected.**

This screenshot shows the same NVR interface as above, but with a message box overlaid. The message box is titled "Message from webpage" and contains the text "Connect DDNS successful". The "Apply" button from the previous screenshot is highlighted with a red box. The "Check DDNS Status" button is also visible.

### 3.1.3 Time and Date

The screenshot shows the 'Time and Date Setting' page under the 'System Configuration' section of the 'Setup' menu. On the left, there is a navigation tree with 'System Configuration' expanded, showing 'Network Setup', 'Time and Date' (which is selected and highlighted in blue), 'Users Account', 'Group Privilege', and 'Disk Setup'. Other collapsed sections include 'Channel Configuration', 'Event Configuration', 'Recording Configuration', and 'System Options'. The main right panel is titled 'Time and Date Setting' and contains three configuration options:

- Manual:** A group of dropdown menus for setting the year (2009), month (05), date (06), hour (10), minute (24), and second (29).
- Sync with NTP Server:** A group of input fields for 'NTP Server' (set to 'ntp.ucsd.edu') and 'Update Interval' (set to '24 hr').
- Sync with PC:** A checked checkbox with the status 'May 06, 2009 10:24:29'.

A large 'Apply' button is located at the bottom right of the panel.

Set the time and date by selecting the time zone according to your location. It is imperative that you set the recorder's time correctly to avoid the following errors:

- Incorrect display time for playback videos
- Inconsistent display time of event logs and when they actually occur

After selecting the time zone, choose an option below to set the recorder time

- **Manual** – Use the drop-down list and configure the time manually
- **Sync with NTP server** – enter the hostname or IP address of a valid NTP server and set how often the recorder should synchronize the time with it by using the "Update interval" drop-down menu
- **Sync with PC** – Check this option to synchronize the recorder time with the PC that you are currently using to access the recorder

## 4 Channel (Basic)

### Network Video Recorder

#### 3.1.4 User Account

The recorder can be accessed by multiple users simultaneously. You can add, remove, and edit users by using options provided in this page to keep user information organized. Each recorder comes with a built-in “admin” account with password “admin”. It’s highly recommended to change the password upon your initial login.

The screenshot shows the 'User Account Setting' page under the 'Setup' menu. On the left, there is a sidebar with 'System Configuration' (Network Setup, Time and Date, Users Account), 'Channel Configuration', 'Event Configuration', 'Recording Configuration', and 'System Options'. The main area displays a table of existing users:

User Name	Group	Description
admin	admin	
guest	guest	sc
joser	supervisor	eng
hunt	opera	tc
view1	VIEWER	japan

Below the table are 'Edit' and 'Remove' buttons. To the right, there is a 'Add User' form with fields for User Name, Password, Confirm Password, Company, Department, Telephone, Mobile, E-Mail, Group, Language, and Description. A note says "Only A-Z, a-z, 0-9 and \_ are allowed". At the bottom right of the form is an 'Add' button.

#### To change the password of the “admin” account:

1. Click and highlight the “admin” account in the account list and click “Edit”
2. Its information should be displayed in “User Account Information”
3. Enter a new password in the “Password” field and enter it again in “Confirm Password”

The screenshot shows the 'User Account Information' page. At the top, a table lists the 'admin' account with a red box around it. A red arrow labeled '1.' points to the 'Edit' button at the bottom of the table. Another red arrow labeled '2.' points to the 'Edit' button in the 'User Account Information' form below. The form contains fields for Username (admin), Password (\*\*\*\*\*), Confirm Password, Company, and Department, all with red boxes around them.

#### To add a new user:

- Enter a username and password in “User Account Information”. All other fields are optional for your own reference.
- Select a group from the “Group” drop-down menu to assign the new user to a particular group
- Enter a short description for the account if you wish
- Click “Apply” to finish configuration

### 3.1.5 Group Privilege

Group Privilege is where you can create multiple customized access policies for situations if you need the recorder to be accessed by users other than the administrator. You can do so by creating a group, and then remove access privileges for certain configuration pages or cameras. Users that are created and assigned to this group will have limited access instead of full administration rights.

The recorder comes with seven built-in groups and five built-in privilege profiles, except the “admin” and the “guest” accounts; the other five groups are fully customizable or you can simply assign a group with one of the default privilege profiles. You can, however, assign more than one users to the “admin” account if you wish to do so. The guest account comes with a “view-only” privilege in the “Live View” page, and users in this group do not have the power to make any changes in the “Live View” page or have access to pages other than the “Live View” page.

To create a group, select a group from the “Group” drop-down

You can change the group name by clicking the “Change Group Name” button. A text box will be displayed for you to enter the new group

## 4 Channel (Basic) Network Video Recorder

Choose what type of privilege you would like this group to have from the "Privilege Type" drop-down menu

Group: Group 1  Privilege Type: Operator

Its access privilege will then be displayed. You can alter its settings by allowing or denying access to other cameras using the checkboxes instead of accepting the defaults

**Group Privilege Setting**

Group: Group1: supervisor  Account Type: Supervisor

Live:

<input type="checkbox"/> CH1	<input checked="" type="checkbox"/> CH2	<input checked="" type="checkbox"/> CH3	<input checked="" type="checkbox"/> CH4	<input checked="" type="checkbox"/> CH5	<input checked="" type="checkbox"/> CH6	<input checked="" type="checkbox"/> CH7	<input checked="" type="checkbox"/> CH8
<input checked="" type="checkbox"/> CH9	<input checked="" type="checkbox"/> CH10	<input checked="" type="checkbox"/> CH11	<input checked="" type="checkbox"/> CH12	<input checked="" type="checkbox"/> CH13	<input checked="" type="checkbox"/> CH14	<input checked="" type="checkbox"/> CH15	<input type="checkbox"/> CH16

Playback:

<input type="checkbox"/> CH1	<input checked="" type="checkbox"/> CH2	<input checked="" type="checkbox"/> CH3	<input checked="" type="checkbox"/> CH4	<input checked="" type="checkbox"/> CH5	<input checked="" type="checkbox"/> CH6	<input checked="" type="checkbox"/> CH7	<input checked="" type="checkbox"/> CH8
<input checked="" type="checkbox"/> CH9	<input checked="" type="checkbox"/> CH10	<input checked="" type="checkbox"/> CH11	<input checked="" type="checkbox"/> CH12	<input checked="" type="checkbox"/> CH13	<input checked="" type="checkbox"/> CH14	<input checked="" type="checkbox"/> CH15	<input type="checkbox"/> CH16

Allow use of PTZ:

<input type="checkbox"/> CH1	<input checked="" type="checkbox"/> CH2	<input checked="" type="checkbox"/> CH3	<input checked="" type="checkbox"/> CH4	<input checked="" type="checkbox"/> CH5	<input checked="" type="checkbox"/> CH6	<input checked="" type="checkbox"/> CH7	<input checked="" type="checkbox"/> CH8
<input checked="" type="checkbox"/> CH9	<input checked="" type="checkbox"/> CH10	<input checked="" type="checkbox"/> CH11	<input checked="" type="checkbox"/> CH12	<input checked="" type="checkbox"/> CH13	<input checked="" type="checkbox"/> CH14	<input checked="" type="checkbox"/> CH15	<input type="checkbox"/> CH16

System Configuration:

System Configuration  Channel Configuration  Event Configuration

### 3.1.6 Disk Setup

Once you install a hard disk to the recorder, you would need to initialize it so that it can be ready for recording. You can obtain basic information about the disk you installed in this page

To initialize it, simply click the "Format" button

The screenshot shows the NVR Setup interface with the following sections:

- NVR Setup** (highlighted)
- System Configuration** (selected)
- Network Setup
- Time and Date
- Users Account
- Group Privilege
- Disk Setup (selected)
- Channel Configuration**
- Event Configuration**
- Recording Configuration**
- System Options**

**Hard Disk Setting**

Disk ID	Disk Type	Capacity	Disk Status	Format
1	Internal	142GB	Online	<b>Format</b>

You can also connect external USB thumb drive to the recorder for firmware upgrade.

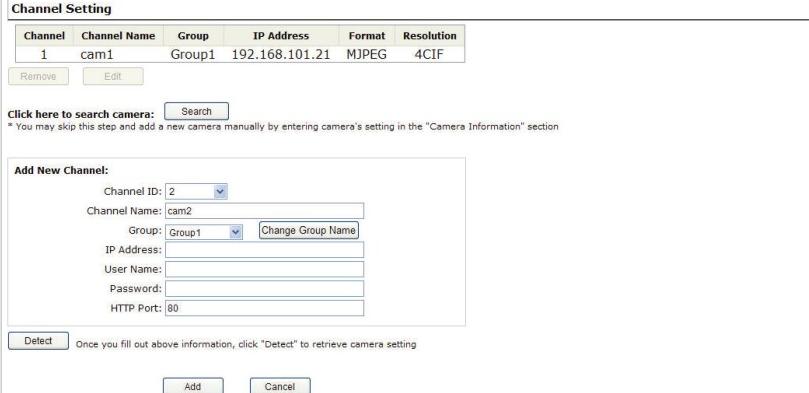


*To obtain detail information about the disk, go to "System Options" >> "Disk Status"*

## 3.2 Channel Configurations

### 3.2.1 Add a Camera

The NVR provides two options for adding a new camera. Users have the option to let the recorder automatically find the cameras or it is possible to enter camera's information and add it manually.



The screenshot shows the 'Channel Setting' page. On the left, a sidebar menu under 'Setup' includes 'System Configuration', 'Channel Configuration' (selected), 'Event Configuration', 'Recording Configuration', and 'System Options'. The main area displays a table with one row:

Channel	Channel Name	Group	IP Address	Format	Resolution
1	cam1	Group1	192.168.101.21	MJPEG	4CIF

Below the table are 'Remove' and 'Edit' buttons. A search bar with 'Search' and 'Click here to search camera:' is present. A note says: '\* You may skip this step and add a new camera manually by entering camera's setting in the "Camera Information" section.' A 'Add New Channel:' form is shown with fields for Channel ID (2), Channel Name (cam2), Group (Group1), IP Address, User Name, Password, and HTTP Port (80). A 'Detect' button is available to retrieve camera settings. At the bottom are 'Add' and 'Cancel' buttons.

### Automatic Search:

1. Click the "Search" button to perform the camera search. You should be prompted to install Active Control component in order for the search to function properly. Go ahead and click "Install"



## 4 Channel (Basic)

### Network Video Recorder

2. After that, the search should begin and its status should be displayed:



3. Found cameras should be listed and simply select a camera from the list and press "Configure"

AXIS	P3301	192.168.101.86	80
<input type="button" value="Configure"/> *Select a camera from search result and click "Configure" to configure setting below.			

4. Its corresponding information should be displayed in the "Camera Information" section. Enter its username and password and select the channel ID and name the camera.

Add New Channel:	
Channel ID:	2
Channel Name:	BL-C1CE
Group:	Group1
IP Address:	192.168.11.26
User Name:	admin1
Password:	*****
HTTP Port:	80

5. Click on "Detect" to establish connection between the recorder and the camera. If connection establishes successfully, camera's detailed information should be polled and displayed as below

<input type="button" value="Detect"/> Once you fill out above information, click "Detect" to retrieve camera setting													
<b>Additional Camera Information</b> <table border="1"> <tr> <td>Video Port:</td> <td>554</td> </tr> <tr> <td>Format:</td> <td>MJPEG</td> </tr> <tr> <td>Resolution:</td> <td>640x480</td> </tr> <tr> <td>Frame Rate:</td> <td>Full</td> </tr> <tr> <td>Quality:</td> <td>2</td> </tr> <tr> <td>Record:</td> <td><input checked="" type="checkbox"/> Continuous</td> </tr> </table> <div style="text-align: center;">   <input type="button" value="Preview"/> </div>		Video Port:	554	Format:	MJPEG	Resolution:	640x480	Frame Rate:	Full	Quality:	2	Record:	<input checked="" type="checkbox"/> Continuous
Video Port:	554												
Format:	MJPEG												
Resolution:	640x480												
Frame Rate:	Full												
Quality:	2												
Record:	<input checked="" type="checkbox"/> Continuous												

6. Adjust its video format, frame rate, resolution or bitrate...etc if you wish. You can also click on the "Preview" to preview the live video of the camera.

Click "Add" to finish adding the camera

## 4 Channel (Basic) Network Video Recorder



If cameras are marked with "\*" in the search result, it means those cameras are already configured and connected to the NVR.

Add a new camera by manually entering camera's setting in the "Camera Information".

	IP Address	HTTP Port	Installed
	192.168.101.40	80	
	192.168.101.42	80	
	192.168.101.41	80	
	192.168.101.47	80	
	192.168.101.43	80	
	192.168.101.23	80	*
	192.168.101.46	80	

### Add a camera manually

Simply follow the instruction described above but instead of using the "Search" function, enter the camera's IP address and credential in the "Camera Information" manually, then follow step 5 ~6 described above.

**Add New Channel:**

2. **1.**

Channel ID:	3
Channel Name:	cam3
Group:	Group1
IP Address:	192.168.101.20
User Name:	root
Password:	*****
HTTP Port:	80

**Detect** Once you fill out above information, click "Detect" to retrieve camera setting

Enter manually

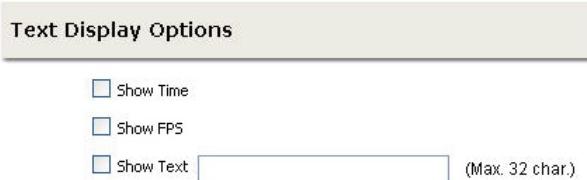
### 3.2.2 OSD Settings

The OSD (On Screen Display) allows users to add informational text message and embed it onto the video. By default, this function is turned off. To add texts to one or more videos,

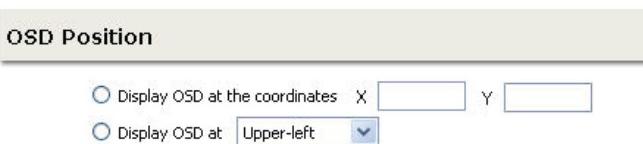
1. Select a camera you would like to add text to and choose "Display OSD"



2. Choose one or more display options if you would also like the recorder to automatically embed the system time or the frame rate for you. Or simply choose to display a custom message of your own



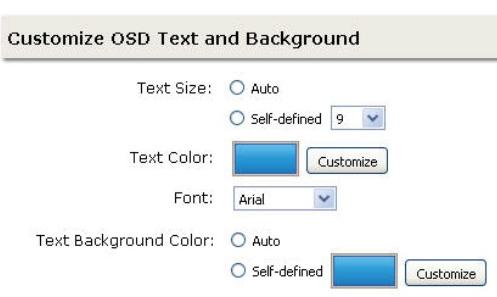
3. Next, define where the text will be displayed by either entering an X/Y coordinate or use the system pre-defined position from the drop-down menu



4. Click on the "Preview" button to see the preview of your setting and click "Apply" to save the configuration

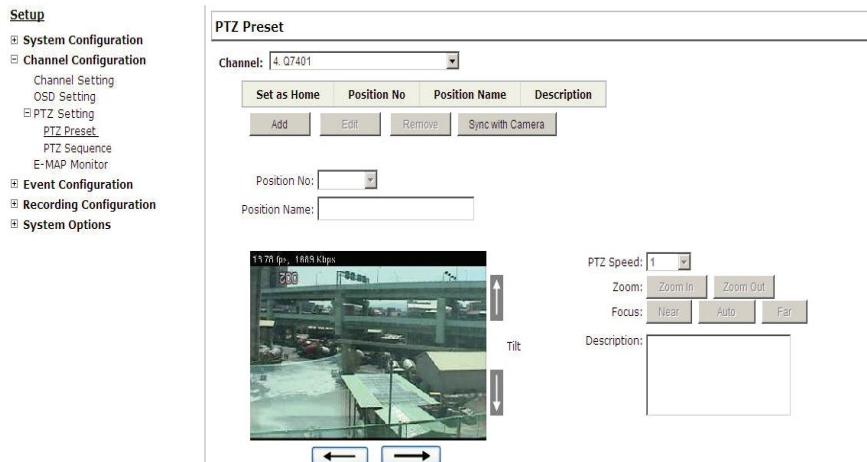


- The texts can be further adjusted with changes to different size, color or font so they can be more visible on the video



### 3.2.3 PTZ Preset Settings

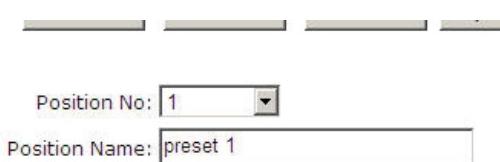
The recorder supports PTZ cameras and can set multiple preset points or retrieve and manage preset points that are set in the camera. This is helpful if you need to monitor multiple spots in one area from a particular camera.



1. To set up PTZ preset points, select a camera from the "Camera" drop-down menu and click "Add"



2. Select a position number for the preset point from the "Position Number" drop-down menu and fill in a name in the "Position Name" field for easier identification



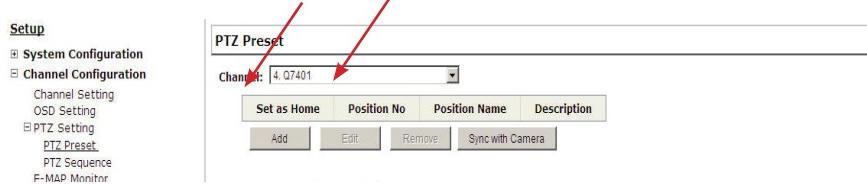
3. Use the PTZ control provided in the configuration page to set the preset point



## 4 Channel (Basic)

### Network Video Recorder

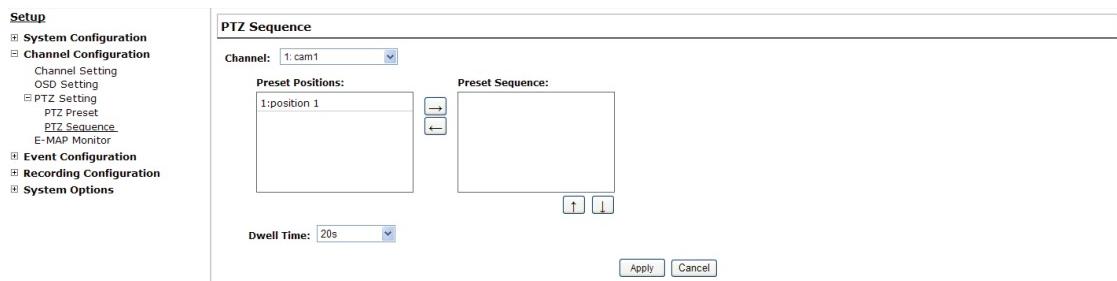
Ultimately, you can choose to make this preset point a "Home" point among all other preset points, as well as making the camera to move to this particular point when an event is triggered.



- *"Move Here when Event Trigger": In order for this function to work properly, please also complete configuration in "Event Configuration" >> "Event Trigger"*

### 3.2.4 PTZ Preset Sequence

Once you have multiple preset points defined for a camera, it is convenient for monitoring to set up the sequencing viewing among those preset point and let the recorder automatically switch between them for you.



To configure preset sequence for a camera, select a channel from the "Channel" drop-down menu

The available preset points should be listed in "Camera Presets" section

Pick the ones you like for sequence viewing and press the "->" button to move them to the "Preset Sequence" section, then use the up and down buttons to adjust their sequencing positions.

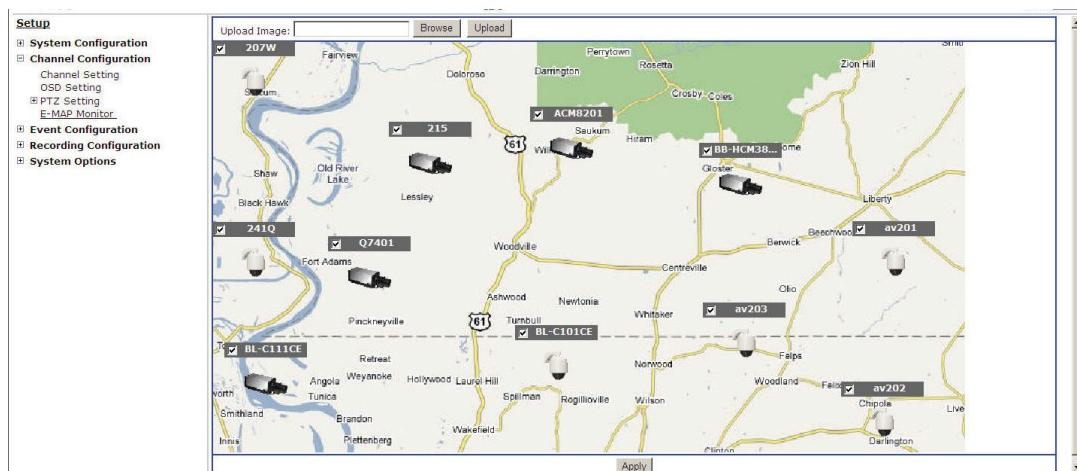
Finally, select a dwell time from the drop-down menu and click "Apply" to save the configuration

- *To start preset sequence viewing, check page 16 for instructions*

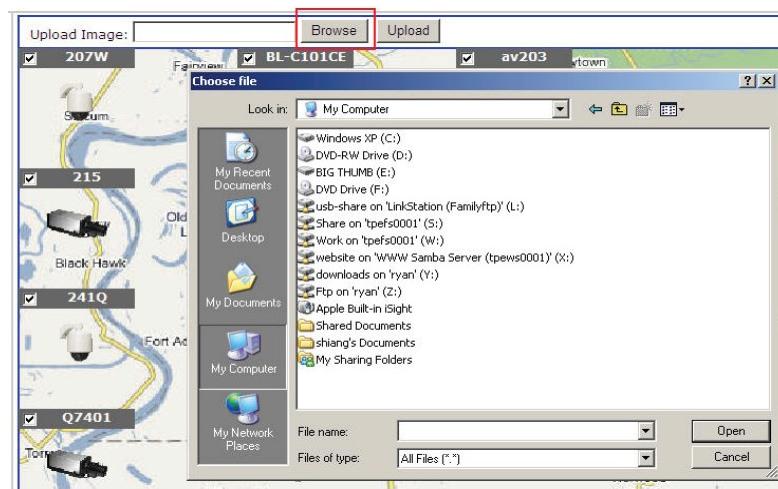
### 3.2.5 E-Map Monitor

#### 3.2.5.1 Local Map Setting

E-Map monitor is a function that alerts users whenever there is an event triggered (e.g. motion detected) from a camera with a geographical perspective. With this function, users can quickly identify which camera has detected an unusual event and where this event is happening. This function works by incorporating the event detection function as well as the recording function, which, as a result, helps users take all the necessary actions when an unusual event occurs.



To replace the map, click "Browse" button to locate the new map image file from the local PC and then click "Upload"



- Only JPG, PNG, and GIF file formats are supported with file size under 100KB

## 4 Channel (Basic) Network Video Recorder

Then click and drag the camera icon to move the camera to define its location.



Access the E-Map Monitor page from the upper-right hand corner menu



When the NVR receives an event triggered from any of the cameras, their videos will be displayed on the E-Map and you can double-click on the video to enlarge it



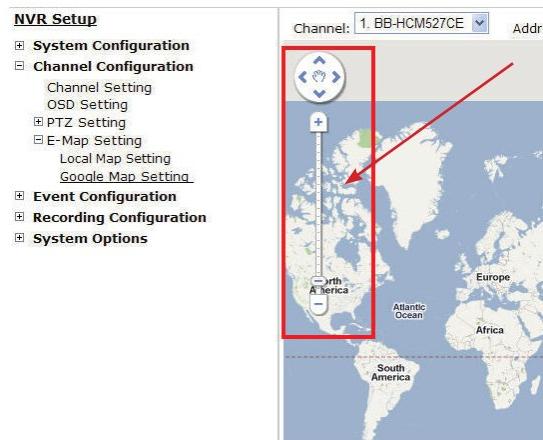
### 3.2.5.2 Google Map Setting

The Google Map monitor is a similar function to the aforementioned E-Map monitor. It is useful if you are managing multiple cameras from different locations.



To configure locations of each camera, first determine the location you'd like to place the camera to on the map. You can do so by:

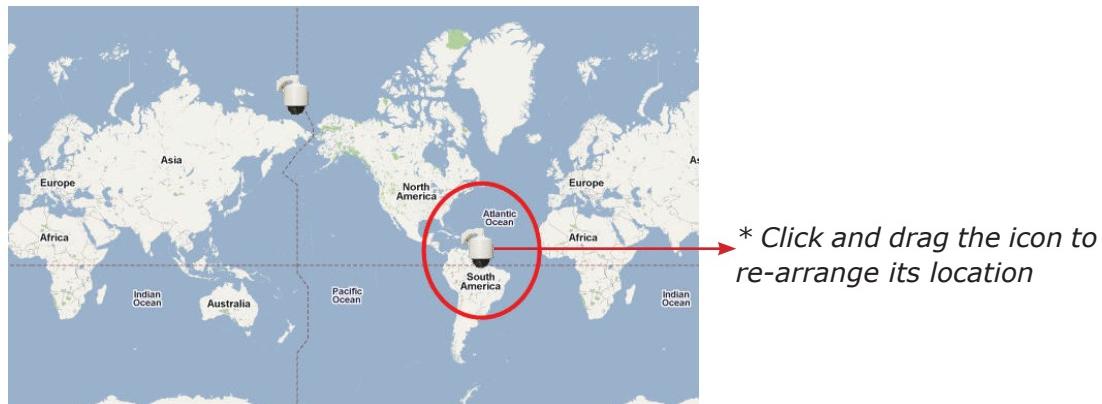
1. Zoom in to a smaller area by using the zoom control bar on the map
2. Zoom in to a smaller area by using the mouse scroll button



You can also go to a specific place on the map by entering its address or the name of the place in the "Address or places of interest" field:



Once the location has been determined, click and drag the camera icon to move it to the desired location:



- *The Google Map Monitor requires active Internet connection and can not be used in conjunction with the regular E-Map monitor function.*
- *You can click anywhere on the map and hold down the mouse left button then drag to move the map itself*

You can then access the Google Map Monitor from the top menu:



### 3.3 Event Configurations

The “Event Configurations” section allows users to define conditions that constitute an event, its corresponding trigger action and when it will be triggered. Such setting can reduce the management overhead and notify the administrator only when it’s necessary.

#### 3.3.1 General Settings

The general settings section can help you quickly configure when an event is triggered, how often events are triggered and the corresponding actions when events are triggered.

Start the event configuration by defining the general settings:

##### Define when an event will be triggered

- Choose “Always” or “Only during...” under “Event Trigger Duration”
- For the “Only during...” option, choose the days by using the checkbox and then define the time range in those days in the “Start Time” and “End Time” fields that you would like the event trigger function to be enabled.

##### How often an event is triggered

- Set a time interval under “Event Trigger Interval” to define how often events are triggered

**Trigger action**

Now that you have the event trigger duration and interval defined, choose what action to be taken during an event trigger:

- You can choose to have the recorder send out the first few frames of the video recorder upon an event is triggered
- You can also choose to have the recorder send out a warning message in e-mail or in txt file format and upload it to an destined FTP server

*\* The image(s) that are uploaded to the destined FTP server or emailed to a destined mail recipient are in their own proprietary image file format (.h4i or .p4i), which can only be opened by the NVR media player. For details, please refer to page34.*

### 3.3.2 Event Servers

Event servers are to be used with event trigger actions. In case of unusual motion detected by the camera or a disk failure, the recorder can send notification with the acceptable format (image/txt) to a destined event server according to the configuration.

#### Configuring an FTP server

**NVR Setup**

- System Configuration
- Channel Configuration
- Event Configuration**
  - General Setting
  - D/I/DO Setting
  - Event Servers**
    - FTP Servers
    - HTTP Servers
    - SMTP Servers
    - Event Trigger
- Recording Configuration
- System Options

**FTP Servers Setting**

Name	Network Address	Port	Passive Mode	Enabled
<input type="button" value="Edit"/>	<input type="button" value="Remove"/>			

**FTP Server**

Name:

Network Address:  \*Enter host name or IP address

Port:  21

**Login Information**

User Name:

Password:

**Passive Mode**

Use Passive Mode

**Test**

\*Click "Test" to test the connection to the FTP server:

To add an FTP server,

1. Start by giving a name to the server that you are adding to the recorder
2. Enter the hostname or the IP address of the FTP server
3. Enter the communication port of the FTP server (usually port 21)

**FTP Server**

Name:

Network Address:  \* Enter host name or IP address

Port:

4. Enter the username and password of the FTP server if it's required
5. Check "Use Passive Mode" if it's required or leave it unchecked to use active mode

**Login Information**

Username:

Password:

**Passive Mode**

Use Passive Mode

6. Click "Test" to verify if all information is entered correctly and the connection to the FTP server can be established successfully
7. Click "Add" for the settings to take effect

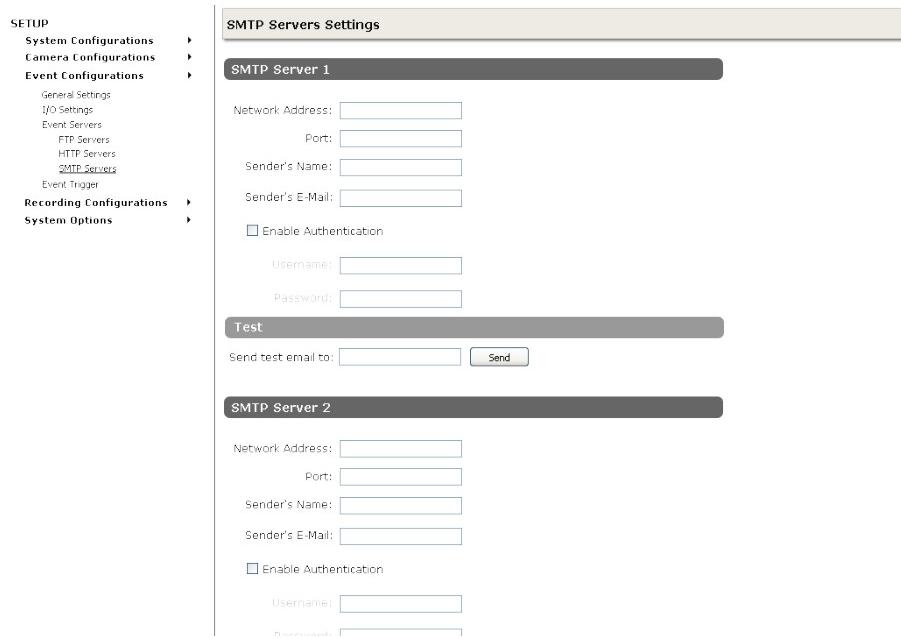
**Test**

\*Click "Test" to test the connection to the FTP server:

 If you wish to edit/remove/enable/disable an FTP server, click to highlight one from the profile list and choose the corresponding action button/checkbox

Name	Network Address	Port	Passive Mode	Enabled
test	ftp.test.com	21	No	<input checked="" type="checkbox"/>

## Configuring an SMTP server

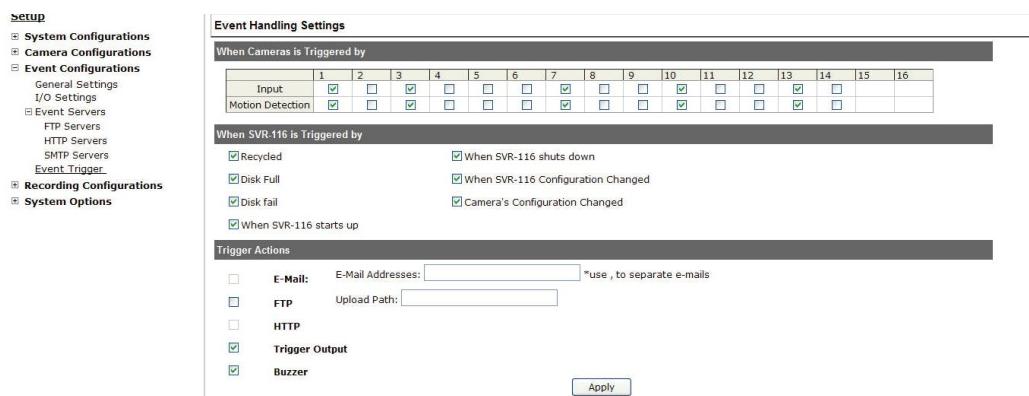


1. Enter the hostname or the IP address of the SMTP server
2. Enter the port of the SMTP server
3. Specify the sender's name in the "Sender's name" field
4. Enter the sender's e-mail address
5. Check "Enable Authentication" and enter the username and password of the SMTP server and as it requires authentication
6. Click "Apply" to save the configuration

### 3.3.3 Event Triggers

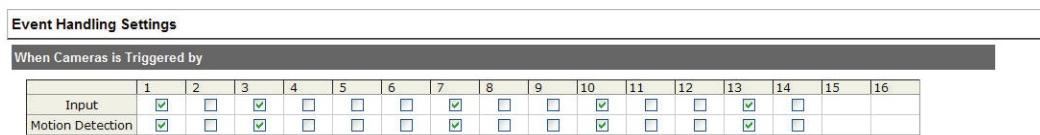
We have finished defining how an event will be triggered and which servers will be receiving notifications in the previous two sections, now we can finish up the event configuration by setting:

- which channels will have event trigger function enabled
- What is considered to be an event
- Where the warnings will be sent to and how they will be sent



### Select Channels to Enable Event Trigger and which type of event should be triggered

- Use the checkbox to enable event trigger on the desired channels



\* Once motion detection is enabled in this page, please configure the motion area and enable motion detection in the corresponding channels (cameras). The NVR only detects the first motion area set in the camera. The NVR recognizes the first motion area by its ID number set in the camera.

- Define which system events should trigger the recorder to send out notifications

**When SVR-116 is Triggered by**

- |   |   |
|---|---|
| <input type="checkbox"/> Recycle                | <input type="checkbox"/> When SVR-116 Shuts down            |
| <input type="checkbox"/> Disk Full              | <input type="checkbox"/> When SVR-116 Configuration Changed |
| <input type="checkbox"/> Disk Fail              | <input type="checkbox"/> Camera Configuration Changed       |
| <input type="checkbox"/> When SVR-116 Starts up |   |

- Define how the notifications will be sent and where they will be sent to

**Trigger Actions**

- |                                     |  |
|-------------------------------------|--|
| <input checked="" type="checkbox"/> | <b>E-Mail:</b> E-Mail Addresses: <input type="text"/> *use "," to separate e-mails |
| <input type="checkbox"/>            | <b>FTP</b> Upload Path: <input type="text"/>                                       |
| <input type="checkbox"/>            | <b>HTTP</b>  |
| <input type="checkbox"/>            | <b>Trigger I/O Output</b>  |

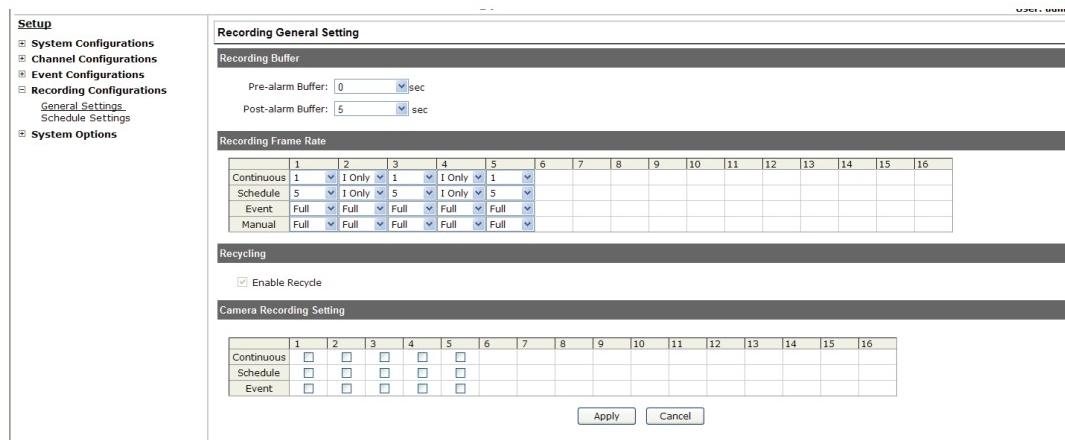
\* Event trigger may not work for cameras that are placed outside of your local network or on the Internet until the "UPnP Port Forwarding" is enabled in both the NVR and the router.

### 3.4 Recording Configurations

The “recording configurations” gives users the overall control of how and when a recording is performed and the quality of different types of recordings performed on each channels. It can help the recorder to operate with sufficient system resource by performing recording only when it’s necessary with adjustable recording frame rate.

You can define the following in “General Settings”:

- Pre-Alarm/Post-Alarm recording length
- Recording frame rate
- Enable/disable different recording types on different cameras
- Enable/disable audio recording



The “recording buffer” allows user to define “pre-alarm” and “post-alarm” time for event recordings. The “pre-alarm” time sets the NVR to record in advance when an event is triggered. The “post-alarm” time sets the NVR to continue recording for a period of time after an event trigger is finished.

### Recording Buffer

Pre-alarm Buffer:  sec

Post-alarm Buffer:  sec

\* The “Pre-alarm” function only works when the “Continuous” recording is also activated.

Recording frame rate allows you to set different frame rate for different types of recording instead of recording at one frame rate only. Use the drop-down menu and select one of the pre-defined frame rates for a particular recording type

### Recording Frame Rate

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Continuous	1	I Only	1	I Only	1	I Only										
Schedule	5	I Only	5	I Only	5	I Only										
Event	Full	Full	Full	Full	Full	Full										
Manual	Full	Full	Full	Full	Full	Full										

Users can also set to keep a previous number of days of recording data by enabling the option below. This is quite often used in application such as banking which certain countries requires to always keep a minimum previous number of days of recording data.

### Recording Frame Rate

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Continuous	1	I Only	1	I Only	1	I Only										
Schedule	5	I Only	5	I Only	5	I Only										

\* If this option is enabled, once the hard drive is full, the recycle function will then start but it will ensure that the number of days of recording data defined here will stay in hard drive instead of wiping out 20GB of data at a time.

\* If the hard drive is not full, the NVR re-calculates twice a day (each at 2:30am and 2:30pm) to keep the defined number of days of recording data from these two particular point of time backward.

## 4 Channel (Basic) Network Video Recorder

The "Camera Recording Setting" section allows you to turn on or off a particular recording type on any channels.

Camera Recording Setting

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Continuous	<input type="checkbox"/>															
Schedule	<input type="checkbox"/>															
Event	<input type="checkbox"/>															

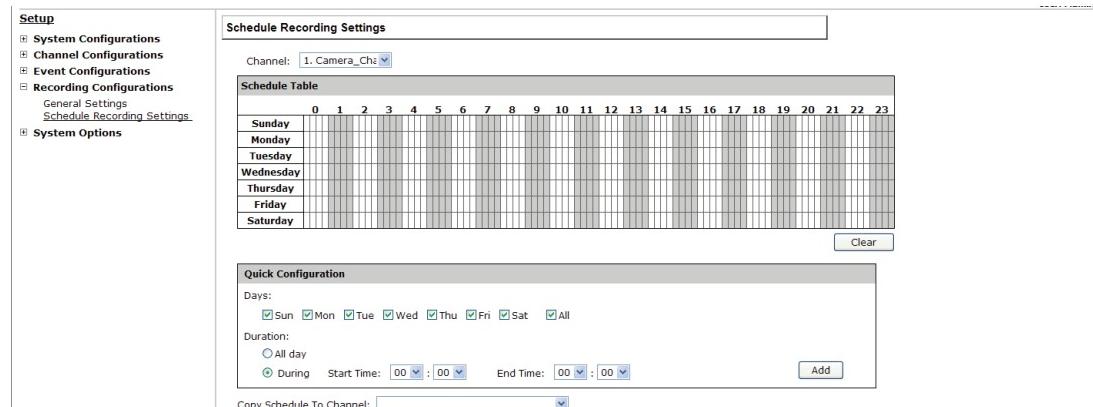
The section at the bottom of the page allows you to disable audio recording (record video only) of particular channels.

Record Audio

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Record audio	<input checked="" type="checkbox"/>															

### 3.4.2 Schedule Recording

Here you can define the time range of the schedule recording for all channels.

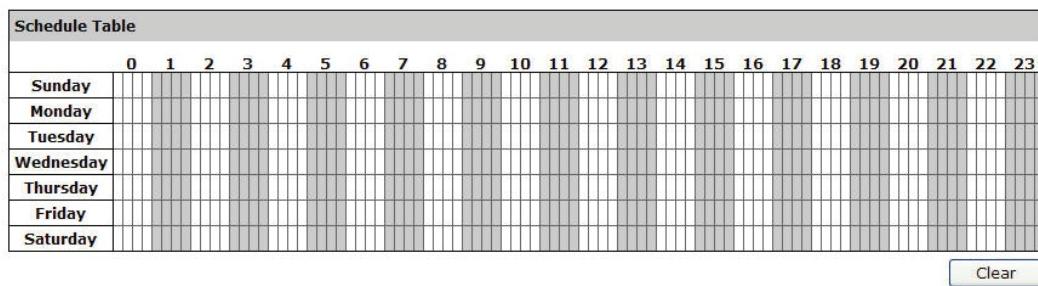


#### To configure a schedule recording:

1. Use the "Channel" drop-down menu and select a camera first



2. You can use the schedule table to set the time range. Click the cell boxes then move horizontally lets you set what hours to perform recording during a day. Click and move vertically lets you set what days to perform recording at a specific time.



\* Each cell box represents 15 minutes of time. Click one or more boxes to omit consecutive recording

3. You can also use the "Quick Configuration" to define recording time range instead of clicking cell boxex one by one on the time table. Simply check what days you would like to perform recording and specify the recording duration by either choosing "All Day" or enter a start and end time for specific recording duration.

**Quick Configuration**

**Days**

Mon.     Tue.     Wed.     Thur.     Fri.     Sat.     Sun.

**Duration**

All day  
 During    Start Time:  End Time:

4. Select the "Copy to" option if you would like to set the same recording schedule to another camera.

During    Start Time:  :  End Time:

Copy Schedule To Channel:

### 3.5 System Options

System Options gives users a glance of the overall system status and allows users to perform maintenance tasks such as upgrading firmware, restore/backup device settings or reboot device ....etc.

#### 3.5.1 Device Information

The "Device Information" provides the general information of the device such as firmware version and system time. It also provides information of the current network settings and status.

Setup
<input type="checkbox"/> <a href="#">System Configuration</a>
<input type="checkbox"/> <a href="#">Channel Configuration</a>
<input type="checkbox"/> <a href="#">Event Configuration</a>
<input type="checkbox"/> <a href="#">Recording Configuration</a>
<input checked="" type="checkbox"/> <a href="#">System Options</a>
<a href="#">Device Information</a>
<a href="#">System Logs</a>
<a href="#">Maintenance</a>
<a href="#">DO Status</a>
<a href="#">Disk Status</a>

General Information
Device Name: tst
Model Name: SVR-116
Firmware Version: 1.2.0.30014714
Device Time: Up 0 days 16:56:55, since May 05 2009 18:56:23
Network Information
Network Type: DHCP
Device IP: 192.168.102.2
HTTP Port: 80
Streaming Port: 9877
MAC Address: 00:28:68:78:31:03
DHCP Server: Disabled
UPnP Port Forwarding: Disabled
Current DHCP Clients

## 4 Channel (Basic) Network Video Recorder

### 3.5.2 Logs and Reports

"Logs and Reports" keeps a record of what's been happening to the device and provides basic information for troubleshooting

```

Setup
  System Configurations
  Channel Configurations
  Event Configurations
  Recording Configurations
  System Options
    Device Information
    Logs and Reports
    Maintenance
    DO Status
    Disk Status

Logs and Reports
2008/10/13 17:26:34.101 - mct1_Init starting count=1
2008/10/13 17:26:34.102 - Init global variable success
2008/10/13 17:26:34.111 - MCT_Initialize success
2008/10/13 17:26:34.220 - NPM_ImplementMedia success
2008/10/13 17:26:34.221 - NPM_Initialize success
2008/10/13 17:26:34.222 - mct1_Init_HandleHDDDevice begin->
2008/10/13 17:26:34.223 - success->end mct1_Init_HandleHDDDevice
2008/10/13 17:26:34.226 - StreamingClient_ModuleBegin success
2008/10/13 17:26:34.227 - StreamingClient_StartStreaming
2008/10/13 17:26:34.228 - SVR set server port 9877
2008/10/13 17:26:34.301 - VGC_Initial success
2008/10/13 17:26:34.303 - mct1_EventServerActionThread name=exec1EventPackThread 0 begin->
2008/10/13 17:26:34.304 - mct1_EventServerActionThread name=exec1EventPackThread 1 begin->
2008/10/13 17:26:34.320 - mct1_EventServerActionThread name=exec1EventPackThread 2 begin->
2008/10/13 17:26:34.329 - mct1_EventServerActionThread name=exec1EventPackThread 3 begin->
2008/10/13 17:26:34.338 - mct1_EventServerActionThread name=exec1EventPackThread 4 begin->
2008/10/13 17:26:34.347 - mct1_EventServerActionThread name=exec1EventPackThread 5 begin->
2008/10/13 17:26:34.357 - mct1_EventServerActionThread name=exec1EventPackThread 6 begin->
2008/10/13 17:26:34.367 - mct1_EventServerActionThread name=exec1EventPackThread 7 begin->
2008/10/13 17:26:34.378 - mct1_EventServerActionThread name=exec1EventPackThread 8 begin->
2008/10/13 17:26:34.392 - mct1_EventServerActionThread name=exec1EventPackThread 9 begin->
2008/10/13 17:26:34.392 - mct1_EventServerActionThread name=exec1EventPackThread10 begin->
2008/10/13 17:26:34.402 - mct1_EventServerActionThread name=exec1EventPackThread11 begin->
2008/10/13 17:26:34.411 - mct1_EventServerActionThread name=exec1EventPackThread12 begin->
2008/10/13 17:26:34.420 - mct1_EventServerActionThread name=exec1EventPackThread13 begin->
2008/10/13 17:26:34.428 - mct1_EventServerActionThread name=exec1EventPackThread14 begin->
2008/10/13 17:26:34.436 - mct1_EventServerActionThread name=exec1EventPackThread15 begin->
2008/10/13 17:26:34.445 - mct1_EventServerActionThread name=exec1EventPackThread16 begin->
2008/10/13 17:26:34.452 - mct1_EventServerActionThread name=exec1EventPackThread17 begin->
2008/10/13 17:26:34.460 - mct1_EventServerActionThread name=exec1EventPackThread18 begin->
2008/10/13 17:26:34.469 - mct1_EventServerActionThread name=mct1EventPackThread19 begin->
2008/10/13 17:26:34.484 - mct1_Req_Cfg_ResetAllDeviceEvent begin->
2008/10/13 17:26:34.485 - [2:1] clear all device event action
2008/10/13 17:26:34.486 - [2:1] separate basic event parameter
2008/10/13 17:26:34.488 - [2:2:1] set camera event condition and action parameter
2008/10/13 17:26:34.488 - [2:2:2] set svr event condition and action parameter

```

### 3.5.3 Maintenance

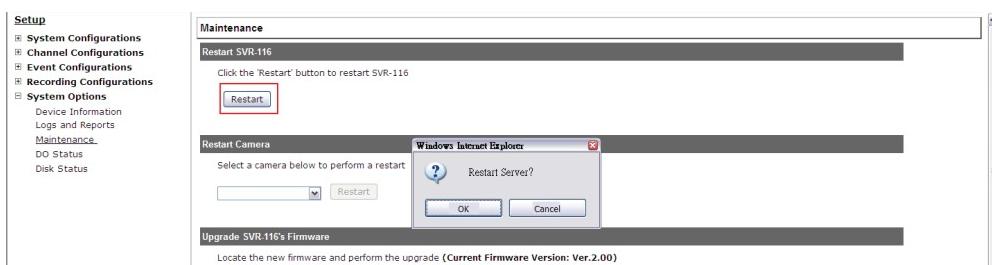
"Maintenance" provides functions for users to:

- Reboot the NVR when necessary
- Reboot cameras directly from the NVR
- Perform Firmware Upgrade
- Backup the NVR's settings to a local hard drive
- Restore the NVR's settings from a previously saved configuration file
- Reset the NVR's settings to their factory default values

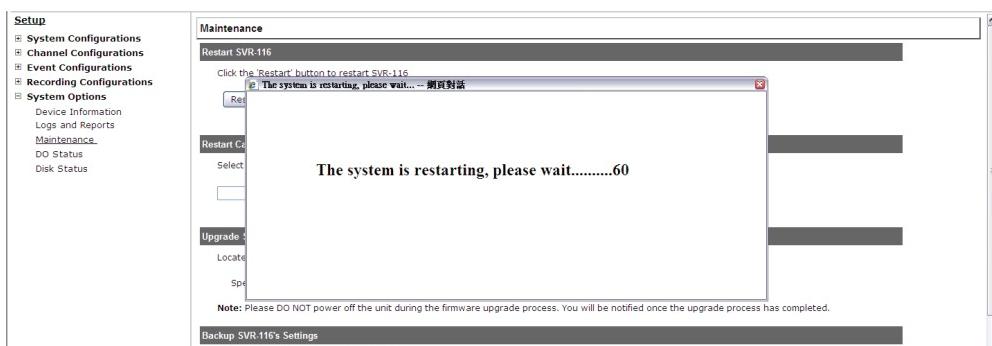
## Reboot the NVR

Reboot the NVR after you upload a new firmware. You would need to manually reboot the system for the new firmware to take effect. Such process would prevent a recording from getting interrupted because the system would not automatically reboot itself after the new firmware is loaded onto the recorder.

Simply click “Restart” to begin the reboot process and confirm the action:



The restart process should be displayed and you should be prompted back to the “Maintenance” page after it is complete:



**Reboot the NVR at a specific time automatically**

You can also configure the NVR to restart automatically by using the options given in the web UI. You can set the NVR to restart at a particular hour of a specific day during a week or a month.

**Restart NVR Automatically**

Select one of the options below:

Restart: Every week  Monday  00:00

**Restart NVR Automatically**

Select one of the options below:

Restart: Every month  4  03:00

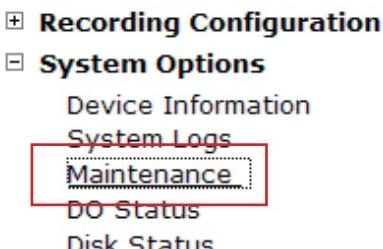
### Firmware Upgrade

The firmware can be upgraded through web UI or USB. Before upgrading firmware, please backup configuration in advance.

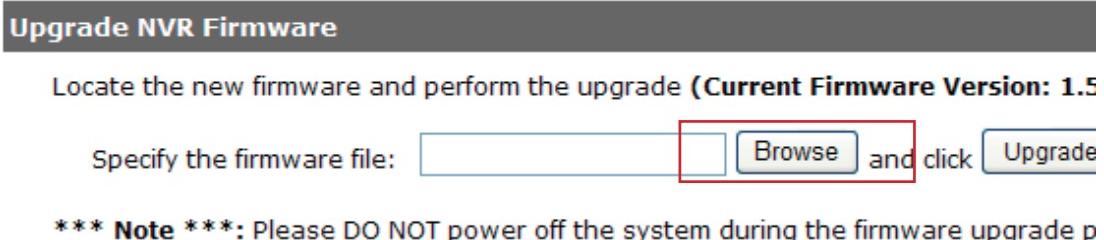
**\*\* the firmware file comes with a ".tar.gz" file extension, please use the file as is, DO NOT unzip it. It's normal that you may only see ".tar" as the ".gz" file extension is hidden by default in Windows. You will get "incorrect file format" error message if the file extension is altered. Certain personal firewall may also cause such problem.**

#### A. Upgrade through Web UI

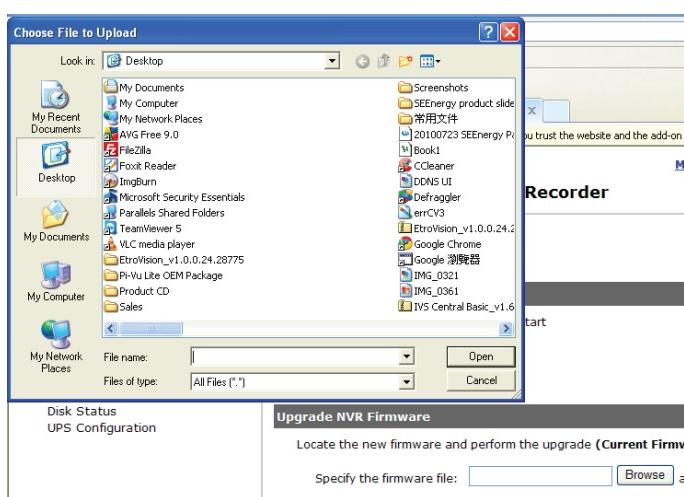
1. Login into NVR's web management UI. Go to "Setup" page and go to "System Options"->"Maintenance"



2. On "Upgrade NVR's Firmware" section, click "Browse" and select new firmware file



3. A new dialog should display and let you choose the location of the firmware file



4. When done, click "Upgrade"



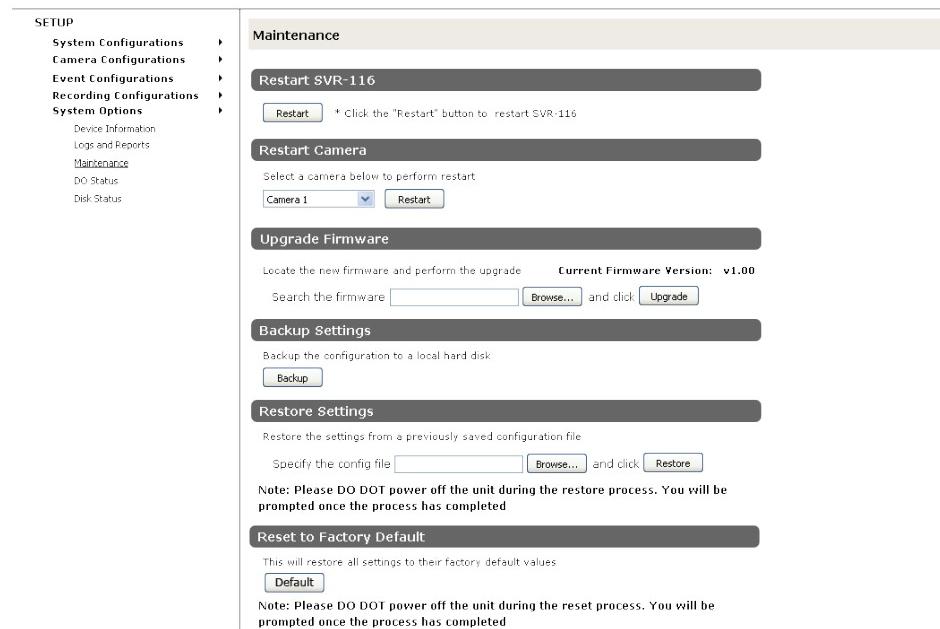
5. Follow the on screen instruction and wait for the process to finish  
(After upgrade, the system will reboot automatically, it's part of the process)

#### B. Upgrade through USB

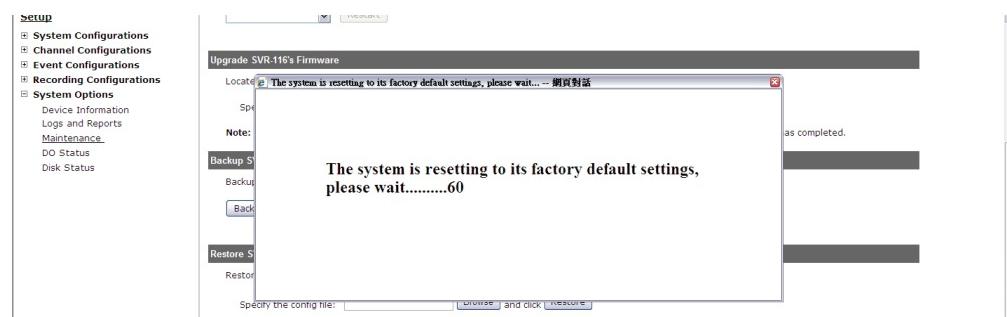
1. Prepare a USB flash disk and format with FAT or FAT32 format
2. Place the firmware in the USB flash disk and make sure it's placed at the top-level directory. Please do not place the file in a folder.  
**(make sure to change the firmware file name to "firmware" and leave its file extension ".tar.gz" as is before placing the file to the USB disk)**
3. Plug USB flash disk into USB port on the NVR
4. The Status LED on the NVR will start to flash in amber. This indicates firmware upgrade is in process
5. \*\*\* Warning \*\*\* Please wait until upgrade process finished, interrupt the upgrade process may cause system not work anymore
6. Wait until Status LED flashes in green. This indicates firmware upgrade is finished
7. Power off the NVR and remove the USB disk the power the unit back on again
8. Restore configuration file back if needed

### Reset the NVR to Factory Default

To reset the recorder back to its factory default, click “Default” button and begin the process:

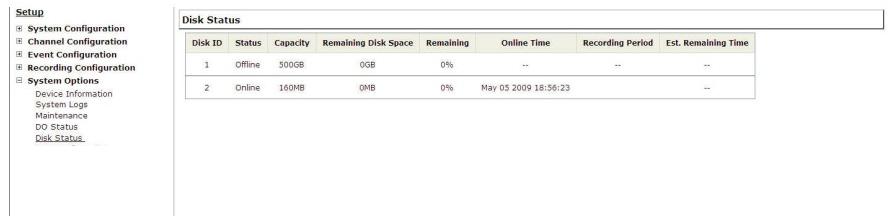


The process should be displayed and you should be prompted back to the “Live View” page after it is complete:



### 3.5.4 Disk Status

"Disk Status" gives you a more detailed information of the hard drive that is currently installed in the NVR.



The screenshot shows a navigation menu on the left with options like Setup, System Configuration, Channel Configuration, Event Configuration, Recording Configuration, and System Options. Under System Options, 'Disk Status' is selected. The main area displays a table titled 'Disk Status' with columns: Disk ID, Status, Capacity, Remaining Disk Space, Remaining, Online Time, Recording Period, and Est. Remaining Time. Disk 1 is listed as Offline with 500GB capacity and 0GB remaining. Disk 2 is listed as Online with 160MB capacity and 0% remaining. The recording period for Disk 2 is shown as May 05 2009 18:56:23.

Disk ID	Status	Capacity	Remaining Disk Space	Remaining	Online Time	Recording Period	Est. Remaining Time
1	Offline	500GB	0GB	0%	--	--	--
2	Online	160MB	0MB	0%	May 05 2009 18:56:23	--	--